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The Chat

Vol. 64 WINTER 2000 No. 1

The Quarterly Bulletin of the Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas

THE CHAT

(USPS 101-020)

Vol. 64 WINTER 2000 No. 1

Published by The Carolina Bird Club, Inc.

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THE CHAT is published quarterly for $20.00 by the Carolina Bird Club, Inc., with headquarters at the North Carolina State Museum of Natural Sciences, 11 West Jones Street, Raleigh, NC 27601-1029. Second-class postage paid at Raleigh, NC. POSTMASTER: Send address changes to The Carolina Bird Club, THE CHAT, 11 West Jones Street, Raleigh, NC 27601-1029.

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Breeding Bird Communities in Pine Plantations On the Coastal Plain of North Carolina

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Introduction

Prior to European settlement of North America, the landscape of the Southeastern United States was dominated by an estimated 55 million hectares of old growth forest (Ware *et al.* 1993). Since that time, three centuries of land clearing for agriculture and other uses has reduced the extent of forest cover to 60% of its former range. Conversion rates of some forest types in this region have been extremely high. For instance, longleaf pine (*Pinus palustris*) forests have been reduced by nearly 24 million hectares and currently exist in only 1% of their historic range.

The character of much of the remaining forested land also has been altered. Over the past two to three decades, large timber corporations began to implement intensive management operations to produce sustained yields of plantation pines. By 1990, approximately 15% of the remaining forest area in the Southeastern US had been converted to pine plantations. Silvicultural techniques associated with plantations greatly affect landscape composition and the intrinsic forest structure (Thompson *et al.* 1995). Although specific silvicultural techniques vary with factors such as forest yield (*e.g.* pulpwood, wood fiber, or saw-timber) and tree species, clearcutting stands on relatively short rotation schedules (usually 20-25 years for pulpwood/fiber production) is the dominant practice (USDA Forest Service 1990). Clearcutting creates a specific age-class distribution of habitats that differs in scale and frequency from disturbances in natural landscapes. As a result, landscapes under intensive management often contain more early to mid-successional stands in comparison to natural areas. Additionally, managing timber plantations on short rotations truncates succession and prevents development of some characteristics associated with old-growth forests.

The purpose of this study is to describe breeding bird communities within managed pine plantations on the Coastal Plain of North Carolina. In addition, we provide an elementary description of habitat changes that occur during the management cycle.

Methods

This study was conducted in managed loblolly pine (*Pinus taeda*) plantations in eastern North Carolina (approximately 35° 0'N, 76° 60'W). These plantations are situated in three large management tracts located in Beaufort, Martin, and Washington counties. The tracts are embedded within a matrix of agricultural fields, residential areas, and forested areas. Historically, much of this land was once naturally forested as pocosin wetlands, non-alluvial

swamp forest, and upland mixed pine-deciduous forest. Over a period of time, many of the natural pocosin and swamp forest areas were ditched, drained, and cleared for conversion to agriculture.

The plantations studied are managed for pulpwood and sawtimber production on a 30-35 year rotation. The staggered regime of harvesting and intermediate silvicultural treatments creates a mosaic of different stand ages. Pine stands go through several stages of vegetative succession following planting. Regeneration begins with a grass/seedling phase during the first two growing seasons. Subsequently, for the next 3-7 years, stands are dominated by shrub-layer vegetation and planted trees. Approximately 7-10 years after planting, young pine trees form a dense, low canopy that reduces light penetration to the understory. As a result, ground-level shrub vegetation during this period is significantly reduced. After canopy closure, the plantations are commercially thinned twice before final harvest. Thinnings reduce the number of trees, open the forest canopy, and allow growth of understory vegetation. The vertical stratification of vegetation within stands after first thin is relatively simple with an overstory of planted pines, 15 -20 m in height, and a shrub layer restricted to the first two meters. As stands mature, the growth of hardwood trees in the understory and midstory add additional vegetation layers.

We selected stands that represent ten different stand ages and relation to thinning: (1) 1 year old stands, (2) 3 year old stands, (3) 5 year old stands, (4) 9-11 year old stands, (5) 13-16 year old stands that were 1 year after the first thin, (6) 16-18 year old stands that were 3 years after first thin, (7) 19-22 year old stands that were 5 years after first thin, (8) 22-26 year old stands that were 1 year after second thin, (9) 28-29 year old stands that were 3 years after second thin, and (10) 30-35 year old stands that were 5 years after second thin. Six replicate stands (each > 24 ha) were selected for each stand type. Stands within each type were chosen to minimize variation in planted stocking level and basal area of pine and were separated by at least 500 m. Both the vegetation and the bird community were surveyed during the breeding bird seasons of 1997 and 1998.

Seven minute, fixed radius (50 m) point counts were used to measure bird species richness and bird density. Four point counts were established in each stand and distributed evenly between edge and interior locations. Edge points were positioned 50 m from the stand edge such that the plot perimeter was tangential to the edge. Interior points were positioned at least 150 m from the stand edge. All points were surveyed three times between 1 June and 4 July 1997 and three times between 21 May and 30 June 1998. Surveys were initiated 0.5 hr after sunrise and concluded within four hours.

Species richness was calculated for each stand based on the accumulated number of species detected (within or beyond 50 m radius) over the three survey visits. Bird density was calculated for each survey point as a composite of the survey visit with the highest recorded annual density (within the 50 m radius) for each species detected. A community similarity index was calculated for pairwise comparisons of stand ages, based on the density values of shared species.

The vegetation was sampled within all point count plots to determine vegetation changes across the growing cycle and vegetation responses to

thinning. Linear transects were used for vegetation sampling to parallel the long, regularly distributed canopy openings created by row thinning. The transect length was standardized to 25 m for all surveys. Transect width varied between 4 and 7 m to accommodate variation in thinned and non-thinned rows within stands. Four vegetation transects were established within each point count and equally distributed between thinned and non-thinned rows.

Habitat data were collected at two levels within transects. Counts of all large woody plants (> 8 cm dbh) by species were made over the entire 25 m transect. Counts of all stems, shrubs, and saplings (> 0.5 m in height and < 8 cm dbh) were collected within 2 x 2 m quadrats established at opposite ends of each 25 m transect and summed to represent total groundcover density. Habitat data summarized and presented for this account include groundcover density, pine tree density, and hardwood tree density.

There was no significant variation in habitat or bird community-level variables between survey years so all data were pooled for further analysis. The effects of stand age on bird species richness and bird density were examined by one-way Analysis of Variance (ANOVA). Tukey's Honestly Significant Difference (HSD) test was used for post-hoc comparisons to differentiate which stand ages were responsible for statistically significant results. Community similarity was examined by single linkage cluster analysis. Cluster analysis identifies the most similar stand ages by repeated grouping of a matrix of stand age community similarities. Euclidean distances (*i.e.* the output of cluster analysis) between stand ages reflect the degree of similarity among bird communities in each category. Frequency statistics were used to compare habitat patterns of commonly detected species. Stand age comparisons were made based on the frequency of occupied points (*i.e.* includes detections within 50 m) relative to an expected even distribution among age categories. For each species examined, associations with a particular age or group of ages is based on significant, positive deviations from expected distributions. Finally, vegetation data were examined using a non-parametric test (Kruskal-Wallis ANOVA) due to non-normal distributions and unequal variances of variables between stand ages.

Results

Vegetation Surveys. Across all stand ages, dominant shrub-level vegetation included: cane (*Arundinaria gigantea*), blackberry (*Rubus* sp.), sweet pepperbush (*Clethra anifolia*), fetterbush (*Lyonia lucida*), high bush blueberry (*Vaccinium corymbosum*), and gallberry (*Ilex glabra*). In addition to planted pine trees, dominant canopy and midstory trees included; red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), red bay (*Persea borboinia*), sweet bay (*Magnolia virginiana*), and tulip poplar (*Liriodendron tulipifera*).

Across the entire growing period, stand age had a significant influence on groundcover density (K-W ANOVA, $H = 40.2$, $df = 9$, $p < 0.001$) (Fig. 1). Groundcover density increased from the first growing season to the sixth and then significantly decreased in the tenth growing season. Subsequently, stem density increased significantly only after the first and second thin and declined with time since thin. Hardwood tree density showed an opposite pattern. Overall, the density of hardwood trees significantly increased with stand age

(Spearman $r = .43$, $p < 0.001$, K-W ANOVA, $H = 44.5$, $p < 0.001$), but was significantly reduced by thinning. Finally, as expected, pine tree density was reduced significantly with each thin (K-W ANOVA, $H = 116.1$, $p < 0.001$).

Bird surveys. Over 24,000 bird observations were made during the two-year study period. Although a total of 68 species was detected, 11 species accounted for nearly 70 % of all observations (see Appendix). Species such as the Common Yellowthroat, Eastern Towhee, and Gray Catbird that are associated with early successional habitats or dense understory vegetation, were the most commonly observed.

Stand age had a significant effect on species richness (ANOVA, $F = 23.1$, $p < 0.001$) (Fig. 2). However there were no differences between sequential stand age classes surveyed in this study (HSD tests, all p-values > 0.10). Overall, species richness was positively related to stand age (Pearson $r = 0.72$, $p < 0.001$). Thinned stands had greater species richness values compared to all stands before thinning (HSD tests, $p < 0.001$ for all pairwise comparisons). Stand age was also found to have a significant influence on overall bird density ($F = 38.6$, $p < 0.001$) (Fig. 2). Although density was also positively associated with stand age ($r = .58$, $p < 0.005$), differences between sequential stand ages were variable. Bird density significantly increased from the first growing season through the sixth growing season (HSD tests, p values < 0.05) and was punctuated by a significant decrease (HSD test, $p < 0.005$) in density during the 10th growing season. Subsequently bird density significantly increased only after first thin. There were no significant differences in bird density among stands after thinning (HSD tests, all p values > 0.90).

Cluster analysis further highlighted the influence of stand age on community organization (Fig. 3). The greatest Euclidean distance (*i.e.* the greatest difference in community indices) was between stands in their first two growing seasons and all other stands. A second grouping separated early successional stands (ages 3 through 11 years) from thinned stands. All thinned stands were grouped with greater similarity than any other group of stands.

Of the total species observed during the study, 55 (80%) species were detected in stands before thinning, and 60 (88%) species were detected in thinned stands. Seven species (10%) were detected exclusively in stands before thinning and 11 (16%) species exclusively in thinned stands. The remaining 51 (75%) species were detected in both age subgroups. Although the majority of species observed was detected in early successional and thinned stands, many were not evenly distributed. Based on the overall habitat use patterns for the various species, three functional species groups were formed: 1) early successional - those species exhibiting a significant association with a subgroup of stands 1 through 11 years old, 2) forest - those species exhibiting a significant association with a subgroup of thinned stands, and 3) habitat generalist - those species that exhibit no significant association for either of the subgroups above.

The most commonly observed species within early successional stands were species typically associated with grasslands or shrublands. Turnover rates between early successional stand ages were high for these species reflecting the rapid rates of vegetation change. For instance, some of these species exhibited a significant association with specific stand ages within this age subgroup. The

Killdeer and Eastern Meadowlark were significantly associated with stands in their first two growing seasons. The Eastern Bluebird, Eastern Kingbird, Blue Grosbeak, Indigo Bunting and Field Sparrow were all significantly associated with stands in their first four growing seasons. The American Goldfinch was associated with stands in their first six growing seasons. The Prairie Warbler showed a different pattern and was significantly associated with stands that were two through eleven years old. The Yellow-breasted Chat was significantly associated with stands that were three through six years old. Aerial insectivores (*e.g.* Barn Swallow, Chimney Swift, and Purple Martin) that use these habitats for foraging purposes only, were significantly associated with one year old stands. The Indigo Bunting and the Yellow-breasted Chat exhibited relatively unique patterns. Although these two species were most associated with a subgroup of early successional stands, they were also frequently detected in stands that were 1-2 years after first and second thin.

Habitat-generalist species were distributed evenly across all stand ages and were the most abundant and widespread of all species detected. For example, the Common Yellowthroat was ranked the most abundant species in every stand age examined. Similarly, the Brown-headed Cowbird, Gray Catbird, White-eyed Vireo, and Eastern Towhee were among the species detected with the highest densities. With the exception of the Brown-headed Cowbird, these species are typically associated with dense cover of shrub and understory vegetation, which was present in sufficient amounts for these species in almost all stand ages. These species only underutilized stands in their first and in the 9-11th growing seasons (*i.e.* stands with the lowest stem densities).

The species associated only with the thinned stand ages in this study are those typically found in second-growth forest and mature-forested habitats. Across all thinned stands, there was relatively little variation in the density patterns of individual species. The Downy Woodpecker, Carolina Wren, Blue-gray Gnatcatcher, Acadian Flycatcher, Ovenbird and Carolina Chickadee were among the most abundant species (aside from generalist species described above) and each was evenly distributed among all thinned stands. Additionally, the Eastern Wood-Pewee, Great Crested Flycatcher, Tufted Titmouse, Worm-eating Warbler, Pine Warbler, Summer Tanager, and Northern Cardinal were detected with relatively high densities and also were evenly distributed among the thinned stands. Only two species showed significant associations with particular thinned stand ages. The Hooded Warbler was primarily associated with older stands and had a greater density in stands after second thin compared to stands after first thin. The Brown-headed Nuthatch was detected with a greater density in stands 1-2 years after first and second thin compared to stands with increasing time since thin.

Discussion

The results of this study indicate that the structure of the avian community is influenced by stand age and structure. In general, species richness and bird density were both positively related to stand age. The shifts in community organization across this successional gradient were similar to that reported from other studies (Johnston and Odum 1956, Meyers and Johnson 1978, May 1982, Childers *et al.* 1986). Early successional stands (ages 1-6 years) and thinned

stands vary greatly in vegetative structure. Early successional stands were characterized by dense shrub vegetation and varying coverage of grasses. In contrast, thinned stands were characterized by an open canopy dominated by pine, dense understory vegetation, and a variable density of midstory hardwoods. The gradient between early successional and thinned stands is punctuated by stands that have a very dense, closed canopy and an associated sparse understory (represented by 9-11 year old stands in this study). In addition to their overall gross structure, early successional and thinned stands exhibited different rates of vegetation change. Early successional stands change from patches of bare ground to patches with dense, woody vegetation in a relatively short period of time. In contrast, the change in forest vegetation takes place over much longer time periods.

The influence of differences in both the vegetation structure and rate of change between early successional and thinned stand types is clearly evident in the avian community. Species observed exclusively in early successional stands are those typically associated with grasslands and shrublands. Some of these species were observed within a relatively narrow window of stand ages reflecting rapid change of conditions across this period. Species associated with thinned stands were either habitat generalists that exploit the dense understory vegetation or species typically found in closed canopy forests. Most forest species did not generally discriminate between stand age categories, reflecting a much slower rate of vegetation change during this period. None of the bird species detected were most associated with stands (9-11 years old) that were between early successional and thinned stands. These closed-canopy stands had the lowest bird densities and appear to be inferior habitats for both early successional and forest bird species.

The large canopy openings created during thinning allowed for understory regeneration and had a positive influence on species richness and overall bird diversity. These openings appeared to have extended the habitat use of some early successional species and provided habitat elements required by some forest species. Only two forest bird species showed significant responses among thinned stands (Brown-headed Nuthatch and Hooded Warbler), although many species had lower densities in stands one and two years after first thin. The openness of the understory just after thinning may have deterred some species from using recently thinned stands. However, thinning releases the understory that was used in subsequent years. Additionally, hardwood tree densities reached their highest values in stands at least three years after second thin. The availability of midstory hardwoods appears to be an important habitat requirement for the Hooded Warbler and for other species such as the Wood Thrush and Red-eyed Vireo. The Brown-headed Nuthatch was primarily associated with stands 1-2 years after first and second thins. Occurrence of this species was negatively influenced by hardwood tree density which is lower in stands one year after thinning (Wilson and Watts 1999). The Brown-headed Nuthatch is a pine forest specialist that excavates cavities (usually in a pine snag) relatively low to the ground (unpublished data from this site; McNair 1984). Obstruction of cavity sites by a dense hardwood understory may deter this species. In addition to thinning, Brown-headed Nuthatch occurrence within stands was significantly associated with snags (Wilson and Watts 1999).

Apparently, a combination of an open understory and snag availability are both important habitat requirements for Brown-headed Nuthatches within these plantations.

The commercially-thinned plantations studied here share several habitat characteristics with natural, tall pocosins (Christensen *et al.* 1981). The most conspicuous of these characteristics is a dense thicket of understory vegetation. Moreover, the two habitat types share relatively similar breeding bird communities (Lynch 1982, Karriker 1993). This includes some species that show unique patterns within the coastal plain. The density of Worm-eating Warblers recorded within these pine plantations is greater than at many other locations within the species range (Hanners and Patton 1998). Locally, the density of this species is most similar to that recorded in tall pocosin communities (Lynch 1982, Karriker 1993). In this study, Worm-eating Warblers begin to occupy plantations in their 10th growing season but attain the greatest density in thinned stands that have a dense understory. It appears as if the conversion of some natural habitats, such as pocosins, to open-canopy pine plantations may have had little impact on this population. Similarly, the density of the Black-and-White Warbler in these plantations is similar to accounts reported from pocosin habitats (Lynch 1982, Karricker 1993). The Prothonotary Warbler and the Swainson's Warbler are typically associated with pocosins as well as mature swamp forests. The Prothonotary Warbler was detected only in plantations that were directly adjacent to swamp forest; however, the Swainson's Warbler, was detected with a very low density in plantations (>27 years old) that had a dense understory and that were isolated from any nearby hardwood stands.

Perhaps surprising was the complete absence of the Henslow's Sparrow from the surveyed plantations. Several of the early plantations (1-2 years after planting) surveyed in this study are located only a few miles to the west from a relatively large population of Henslow's Sparrows (*i.e.*, Voice of America grassland). Similarly, Lynch and LeGrand (1985) recorded the species at several sites, including within early stages of pine plantations, in the same geographic area in 1983 and 1984.

Acknowledgments

We thank Tony Melchiors for administrative support and assistance through all aspects of the field work. We also thank Bill Barber and Joe Hughes for educating us about forest tracts, silvicultural techniques and for assistance in selecting study sites. We also gratefully acknowledge Dana Bradshaw, Dawn Kean, Greg Levandoski, and Brian Piccolo for assistance in data collection. Two anonymous reviewers made helpful suggestions to the final preparation of this manuscript. This study was funded through a cooperative agreement between the Weyerhaeuser Company and the College of William and Mary.

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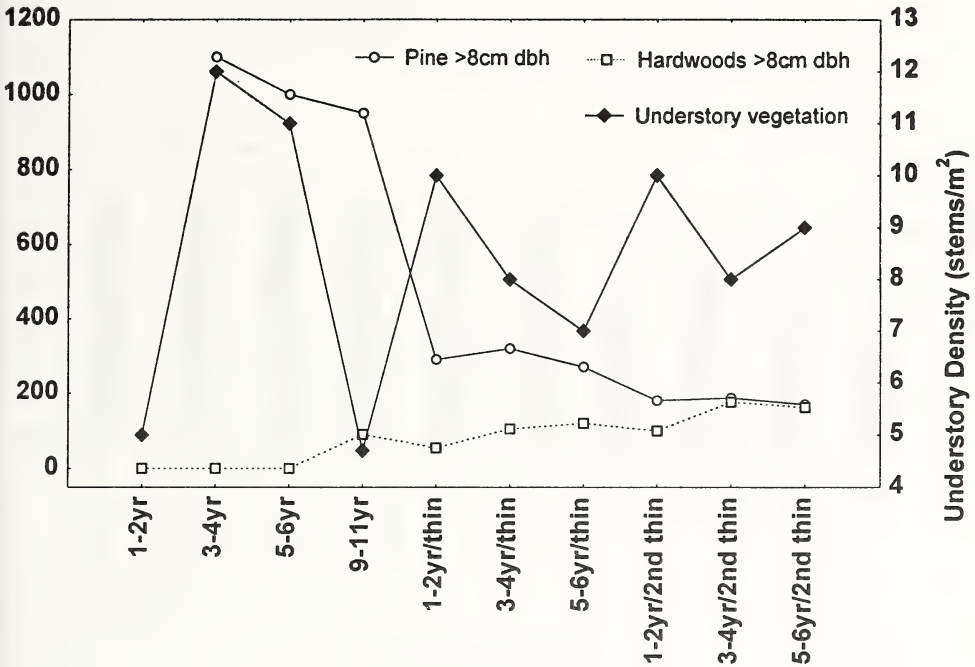

Figure 1. Median values for habitat variables among pine plantation age classes.

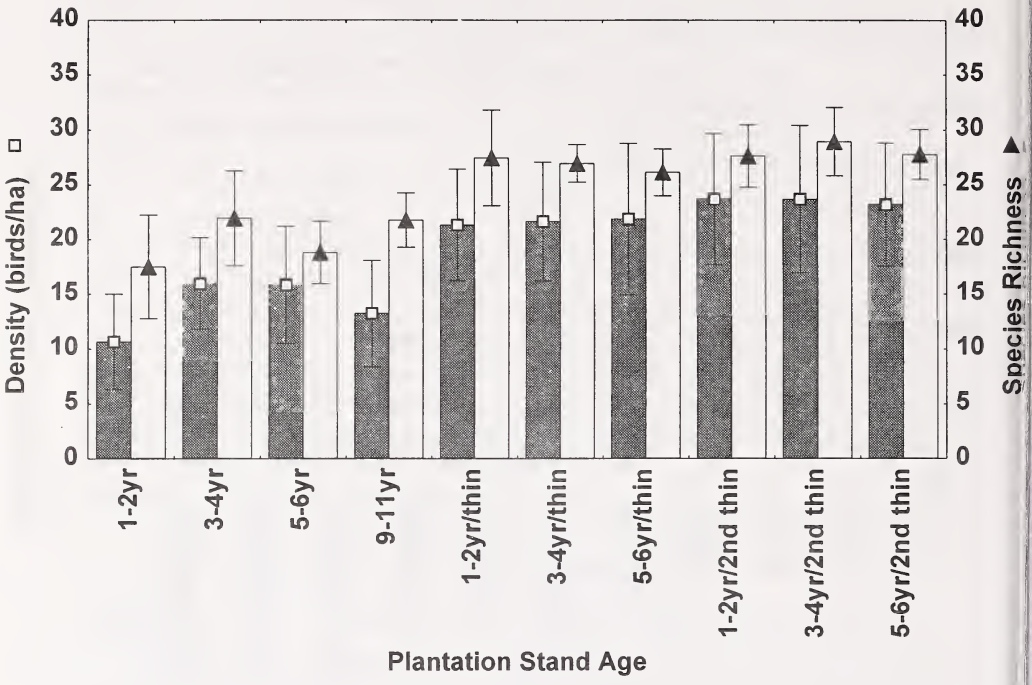

Figure 2. Average species richness and average bird density (± SD) among pine plantation age classes.

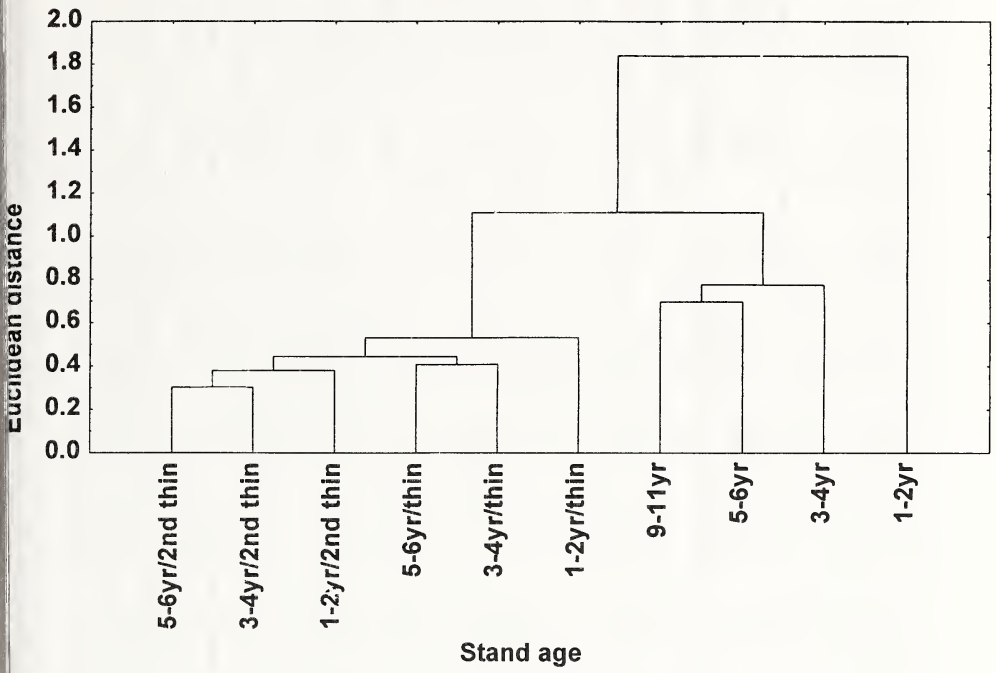

Figure 3. Cluster analysis dendrogram of avian community similarity among pine plantation age classes. Data are based on Euclidean distances between pairwise age comparisons. Greater Euclidean distances represent greater differences in community similarity.

Appendix. Average densities (birds/10 ha) of species detected within Loblolly Pine plantations in eastern North Carolina. Density values for each stand age are based on the average of peak counts for each stand (N = 6 per age category) over two survey years. Densities are calculated only for detections within 50m radius point counts ("P" indicates a given species was present but only detected beyond 50m, and dashes indicate stand ages where a species was not recorded).

	1-2yr	3-4yr	5-6yr	9-11yr	1-2yr/thin	3-4yr/thin	5-6yr/thin	1-2yr/2nd thin	3-4yr/2nd thin	5-6yr/2nd thin
Green-backed Heron	-	-	P	-	-	-	-	-	-	-
Common Bobwhite	3.2	3.7	2.6	0.5	2.1	2.1	1.6	1.6	0.0	0.0
Turkey Vulture	P	-	-	-	-	-	-	-	-	-
Red-shouldered Hawk	-	-	-	-	P	-	P	-	-	-
Killdeer	1.0	-	-	-	-	-	-	-	-	-
Mourning Dove	2.1	4.7	2.1	3.7	2.1	0.5	2.1	3.7	1.6	2.1
Yellow-billed Cuckoo	0.0	1.0	2.6	3.2	1.6	4.2	5.3	3.1	2.1	1.6
Chuck-will's Widow	-	-	-	-	-	-	-	P	-	-
Whip-poor-will	-	-	-	P	-	-	-	-	-	P
Common Nighthawk	P	-	-	-	P	-	-	-	-	-
Ruby-thr. Hummingbird		0.5	0.5	1.0	1.0	P	0.5	0.5	P	P
Red-headed Woodpecker	-	-	-	-	-	-	P	-	-	-
Red-bellied Woodpecker	-	-	-	-	1.1	2.7	2.1	1.0	1.0	1.6
Downy Woodpecker	-	-	2.1	3.1	4.2	6.4	5.8	4.7	4.7	6.3
Hairy Woodpecker	-	-	-	1.1	2.1	0.5	3.2	0.5	1.6	2.1
Pileated Woodpecker	-	-	-	-	-	1.1	1.1	0.5	3.7	0.5
Northern Flicker	-	1.1	2.1	1.1	1.1	1.6	1.1	1.6	1.6	2.1
Eastern Wood-Peewee	0.5	1.1	0.5	-	3.2	3.7	1.6	2.7	3.7	2.7

	1-2yr	3-4yr	5-6yr	9-11yr	1-2yr/thin	3-4yr/thin	5-6yr/thin	1-2yr/2nd thin	3-4yr/2nd thin	5-6yr/2nd thin
Acadian Flycatcher	-	2.1	3.2	3.2	12.2	15.9	12.7	15.4	14.7	15.4
Great Crested Flycatcher	-	-	0.5	3.2	5.3	4.2	5.3	6.9	6.9	7.4
Eastern Kingbird	1.6	2.7	-	-	-	-	-	-	-	-
Purple Martin	2.1	0.5	-	-	-	-	-	-	-	-
Barn Swallow	15.2	-	-	-	-	-	-	-	-	-
Chimney Swift	23.2	1.0	-	-	-	-	-	-	-	-
Blue Jay	-	1.1	1.1	3.2	1.6	1.6	2.1	1.1	0.5	0.5
American Crow	-	2.1	-	0.5	2.7	2.1	-	-	-	-
Fish Crow	-	-	-	-	-	-	-	1.1	-	0.5
Carolina Chickadee	2.1	6.4	12.7	6.9	17.5	24.4	15.9	16.5	25.4	12.2
Tufted Titmouse	-	1.6	1.6	4.2	8.5	7.4	10.6	5.8	7.4	8.5
White-breasted Nuthatch	-	-	-	-	-	0.5	-	-	-	-
Brown-headed Nuthatch	-	-	-	-	5.8	2.1	1.1	6.4	3.2	2.1
Carolina Wren	3.7	6.9	10.1	9.0	11.1	18.0	12.7	12.7	11.7	11.1
Blue-gray Gnatcatcher	-	12.7	7.4	5.8	17.5	15.4	14.9	20.7	16.5	20.7
Eastern Bluebird	2.7	0.5	0.5	-	0.5	-	1.5	1.5	0.5	-
Wood Thrush	-	-	-	5.3	0.5	3.2	4.2	4.2	5.9	6.4
American Robin	-	-	-	P	-	-	-	-	-	-
Gray Catbird	8.5	17.5	16.4	9.0	16.4	14.9	15.4	16.4	12.7	14.9
Northern Mockingbird	P	-	-	-	-	-	-	-	-	-
Brown Thrasher	2.7	2.1	P	P	1.1	1.1	-	-	-	-
European Starling	0.5	-	-	-	-	-	-	-	-	-
White-eyed Vireo	5.8	14.7	14.7	9.6	11.7	8.6	11.7	11.1	14.3	11.7
Yellow-throated Vireo	-	-	-	-	-	0.5	-	P	0.5	0.5
Red-eyed Vireo	-	-	-	-	1.1	1.6	3.2	4.2	5.8	3.7
Black-and-white Warbler	-	-	-	1.6	1.1	3.2	4.8	2.7	4.2	4.8

	1-2yr	3-4yr	5-6yr	9-11yr	1-2yr/thin	3-4yr/thin	5-6yr/thin	1-2yr/2nd thin	3-4yr/2nd thin	5-6yr/2nd thin
Yellow-throated Warbler	-	-	-	-	2.7	1.1	0.5	1.6	2.1	1.1
Prairie Warbler	6.4	17.5	16.5	8.5	4.2	2.1	3.7	1.1	0.5	1.1
Pine Warbler	-	1.6	1.1	5.8	9.6	9.6	11.1	10.6	10.6	11.1
Hooded Warbler	-	-	-	1.6	1.6	3.2	4.2	5.3	7.9	6.9
Worm-eating Warbler	-	-	P	5.8	5.8	8.5	7.9	10.1	9.5	11.1
Swainson's Warbler	-	-	-	-	-	-	1.1	-	2.6	-
Ovenbird	-	-	2.7	6.9	4.7	13.8	9.5	14.3	11.7	11.1
Common Yellowthroat	20.2	26.5	26.5	19.6	24.9	19.1	19.6	22.8	16.5	18.3
Yellow-breasted Chat	6.9	16.5	13.3	4.2	7.4	5.3	3.2	8.5	4.2	5.8
American Redstart	-	-	-	-	2.7	0.5	P	1.1	1.6	0.5
Prothonotary Warbler	-	-	-	-	P	-	1.1	-	2.6	-
Blue Grosbeak	3.7	4.2	P	-	0.5	0.5	-	-	-	-
Northern Cardinal	1.1	3.2	7.9	5.3	4.8	7.9	5.3	7.4	7.9	6.9
Indigo Bunting	12.2	8.5	0.5	2.7	3.7	2.7	0.5	1.1	-	-
Eastern Towhee	8.5	21.7	21.2	15.4	19.6	18.0	23.3	15.4	14.9	13.8
Field Sparrow	3.2	3.7	4.7	-	-	-	-	-	-	-
Chipping Sparrow	1.1	-	-	-	-	-	-	-	-	-
Eastern Meadowlark	1.1	0.5	-	-	-	-	-	-	-	
Common Grackle	1.1	0.5	P	0.5	2.6	-	-	-	-	-
Brown-headed Cowbird	4.2	9.6	9.6	6.9	13.8	10.1	10.6	11.1	13.3	9.0
Orchard Oriole	0.5	-	-	-	P	-	-	-	-	-
Scarlet Tanager	-	-	-	-	-	-	-	-	1.1	P
Summer Tanager	-	-	P	1.1	3.7	2.1	2.6	2.6	3.2	3.7
American Goldfinch	2.6	14.3	3.2	1.1	1.1	0.5	1.1	P	1.1	-

Color Morph Bias and Conservation Concerns for a Tropical *Pterodroma*

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Along the outer continental shelf of North Carolina (ca 35° 40' N, 74° 50' W), the majority of the Herald (South Trinidade) Petrels (*Pterodroma arminjoniana*) reported are dark-plumaged individuals. At the only Atlantic breeding sites (South Trinidade Island, 20° 30'S, 29° 19'W, and Martin Vas Rocks, 20° 30'S, 28° 51'W), ca 500 miles [800 km] off southeastern Brazil, however, the majority of chicks and breeding adults were historically reported to be light-morph birds (Murphy 1936). This discrepancy is the subject of this article; it is testimony to the value of reporting by recreational bird watchers. In this particular case sightings reported from off the southeastern United States provide indirect evidence for the continued decline of a seabird breeding on a remote, seldom visited, oceanic island.

Color ratios in the North Atlantic vs. breeding grounds

Herald Petrels have a rather protracted season of occurrence off North Carolina and presumably elsewhere in the western North Atlantic, where reported occurrences range from 21 May through 26 September. These dates correspond roughly to the period of maximum occurrence of many of the more common tropical seabirds in the region (Lee 1995). Plumage morphs in the North Atlantic are highly biased toward dark-plumaged individuals (>80%); dark and intermediate morphs account for >90% of the records; while light morphs make up approximately 9% of reported occurrences (NCSM records). Of the 60+ records and reports of Herald Petrel from the western North Atlantic, the majority (>90%) are from the Gulf Stream off the Outer Banks of North Carolina. Individual records of Herald Petrels are available for Virginia (July 1996, September 1996), Puerto Rico (Gochfeld *et al.* 1988), and the mid-North Atlantic (21° 51'N, 43° 35'W, Lowe 1911). There is a hurricane-driven specimen record from New York (Allen 1934), and there are a small number of sightings from coastal sites and piedmont reservoirs in Virginia that are associated with hurricanes (Brinkley *et al.* 1997). All but one of these are also dark-plumaged birds. Unfortunately not enough pre-1985 records of these *Pterodroma* away from breeding areas are available to show if dark morphs were always dominant in the North Atlantic.

Actual percentages are probably even more biased toward dark individuals than available records and reports suggest. There were a number of summer and fall reports of Sooty Shearwaters (*Puffinus griseus*) from waters off the

southeastern United States made prior to the documentation of Herald Petrel in the region. The Sooty Shearwater is a very rare summer resident and fall migrant in the sub-tropical western North Atlantic, and some of these Sooty Shearwater reports are likely to represent dark morphs of the Herald Petrel (Lee 1979). There is a problematic photograph of a Kermadec Petrel (*P. neglecta*) from Pennsylvania (Heintzelman 1961) that many believe to be of a dark phase Herald Petrel, and two turn-of-the-century records from the UK of Kermadec and Collard (*P. leucoptera*) Petrels are suspected to be Herald Petrel (Cramp and Simmons 1977). Additionally, there are a number of sightings of dark *Pterodroma* from the western North Atlantic that, because of distance and other factors, were not identified to species but which were most likely this petrel (*e.g.*, Lee 1984, Aud. Field Notes 50:267).

The ratios of plumage morphs of Herald Petrels nesting on South Trinidade Island, on the other hand, have been reported as highly biased toward light morphs. Early authors did not provide estimates of the ratios of the plumage morphs, but from reading early accounts it is clear that the dark 'arminjoniana' were by far the least common whereas white-breasted petrels were abundant (Sharpe 1904, Wilson 1904, Nicoll 1906, and Murphy 1936). Storrs Olson (US National Museum), however, visited the island between December 1975 and January 1976 and found the reverse to be true. He recorded only "40 out of 100 birds to be light phase" (Olson, field notes).

Using the most conservative figures (all birds unquestionably identified to species) for the ratios of dark-to-light and intermediate morphs visiting the western North Atlantic (49:12), and the highest reported ratio of dark-to-light morphs on the Atlantic breeding site by Olson (60:40), the dispersal of dark color morphs into the North Atlantic is much more frequent than expected, and the disproportionate number of dark-plumaged birds occurring in the North Atlantic is highly significant ($x2 = 7.17$, $df = 1$, $P = 0.007$).

Factors possibly affecting North Atlantic color morph ratios

Color morph variance may have selective value. Spear and Ainley (1993) have demonstrated an absence of kleptoparasitism by jaegers and skuas (subfamily Stercorariinae) on Kermadec and dark morph Herald Petrels in the eastern tropical Pacific. Batesian mimicry, where one species gains advantage in resembling another, allows these petrels to avoid being parasitized because jaegers and skuas do not parasitize conspecifics. Other *Pterodroma* of similar sizes are parasitized. Lee (1979) noted the striking similarity between dark morph Herald Petrels and dark morph jaegers in the western North Atlantic. The flash marks in the primaries of Atlantic Herald Petrels are quite conspicuous (Lee 1979, Harrison 1983), whereas they are absent on Herald Petrel (*P. [a.] heraldica*) of the Pacific (Spear and Ainley 1993). Additionally, Herald Petrels often exhibit flight styles that are straight and direct (wings held parallel to the ocean's surface), thus more reminiscent of a jaeger than of a *Pterodroma* (Lee 1979, 1984).

Spear and Ainley (1993) suggest that mimic petrels are Batesian 'defensive' and resemble a dangerous/noxious species (skuas). Skuas and large jaegers (and thereby their mimics) enjoy some degree of predator avoidance.

In skuas and large jaegers, long distance visual signals are effective, and these birds do not parasitize conspecifics (Furness 1987) and seldom parasitize smaller jaegers (Spear and Ainley 1993). However, Spear (pers. comm.) is aware of no compelling evidence suggesting that dark morph birds are more successful kleptoparasites than light morph birds, and there does not appear to be a distributional difference between light and dark morph Herald Petrels in the Pacific. Furthermore, even the evidence for selection of plumage for kleptoparasitism in Parasitic Jaegers (*Stercorarius parasiticus*) is conflicting (Furness and Furness 1980). Thus, it seems unlikely that a differential marine distribution of color morphs would be driven by mimicry.

Another explanation for the discrepancy in color morph ratios of Herald Petrels seen off the southeastern United States is that the population on South Trinidade Island and Martin Vas Rocks is in severe decline and that the color morphs, because of differential survival at these breeding sites, are actually declining at different rates. The differences in rate of decline may relate to differences in nest site selection of the two plumage types. Williams (1984) noted that the colony at South Trinidade Island probably has been significantly reduced since Murphy (1936) recorded 'vast numbers' there in 1914. Comparison of turn-of-the-century descriptions of the petrel colony size on South Trinidade Island to those of Olson (1981) indicate extreme declines for the Atlantic population. The early reports of Sharpe, Wilson and Nicoll are from November and January, the same general season of Olson's visit. Thus, it seems likely that the more accessible nesting colonies of the lighter morphs had been depleted by feral animals and the military garrison stationed on the island (Olson 1981, Williams 1984), thus accounting for the discrepancy in color morph abundance in the 50-75 year period between reports. While there is no hard data on population size, Williams (1984) states that this petrel is now confined to inaccessible cliff nesting sites, probably as a result of predation by feral cats. Olson (1981) reported that the petrels were fairly abundant on several of the high peaks of Trinidade, implying that they were absent from the lower sites where they were reported to occur abundantly earlier in the century. Nearby Martin Vas, the only other Atlantic nesting site, is used as a naval target by the Brazilan military, and populations are believed to be reduced there as well (Williams 1984).

The petrels originally nested on the soil beneath the trees, so it can be assumed that their populations were numerically larger prior to deforestation. Even the earliest accounts from South Trinidade were made after the destruction of the *Colubrina* forest that covered most of the island. The forest died within a short period as a result of ring barking actions of feral goats (Murphy 1936) or fire (Olson 1981).

In view of the non-selective value of color morphs in kleptoparasites in the Pacific, it seems likely that the high occurrence of dark morphs off North Carolina reflects actual ratios of the breeding population. Assuming that the abundance of dark morphs does not result from a selective marine distribution of color morphs and that the available predator-free nesting sites on the cliff faces of South Trinidade Island are finite, and in view of the significant additional shift in the color morph ratio of birds between the mid-1970's and mid-1990's, conservation concerns for this population appear to be serious.

Furthermore, under current taxonomy, the race of Herald Petrel nesting on South Trinidade Island breeds only at one other locality – Round Island, off Mauritius, in the Indian Ocean. Here it has also undergone severe declines (Tempel 1974, Vinson 1976), and the population continues to be harvested for human food (Gardner *et al.* 1985).

The conservation aspects of this story are more complex than the taxonomy indicates. Current taxonomy is based on Murphy and Pennoyer's (1952) revision of the larger *Pterodroma*. They reported on a newly-discovered population of Herald Petrels in the Indian Ocean and reclassified the Pacific *P. heralda* as a race of *arminjoniana* on the basis of supposed intermediate characteristics in the Indian Ocean population. Imber (1985) reexamined the taxonomy of *Pterodroma* and considers *heraldica* and *arminjoniana* as separate species. Brook and Rowe (1996) do not refer to Pacific birds as races of *arminjoniana*, while other authors (*e.g.*, Warham 1990) and the American Ornithologists' Union have not followed this arrangement. Olson and Lee (in ms), based on a number of characteristics, consider the two taxa to represent distinct species. Brook and Rowe (1996) found dark morph *Pterodroma* of this species complex mating only with other dark morph individuals and nesting away from light morph birds in the Pitcairns (western South Pacific). Combining behavioral information with sequencing data of the mt cytochrome-b gene, they concluded two species were involved. They named the dark morph birds *P. atrata* and the light ones remained *P. heraldica*. The situation may be similar in the Atlantic. Nicoll (1906) noted that the nests of the then-rarer dark morph birds were found only at higher altitudes on South Trinidade Island. It has also been suggested that the ratios of different morphs vary with season. Wilson (1904) not only found nesting dark birds to be higher on the island and 'well away from their white breasted cousin,' but during his September 1901 visit, he found the white-breasted birds in all stages of nesting and found the darker birds with no young and eggs in only early stages of incubation (also see discussion in Murphy 1936). Additionally, Sharp (1904) mentions noticeable differences in bill sizes between the different color morphs. Thus, conservation concerns should be directed at the species level, and anecodotal information from early in this century and conjecture based on studies of *P. heraldica* in the Pacific suggests that more than one taxon of *Pterodroma* may be endemic to South Trinidade Island.

Despite the lack of recent inventory of population size, or even current reports of color morph ratios at Atlantic breeding sites, available information strongly implies that the high ratios of dark birds visiting the North Atlantic are not biased but actually reflect recent changes in population composition and size at tropical Atlantic breeding sites. Whatever future taxonomic decisions occur regarding the petrels breeding on South Trinidade Island, it remains clear that 1) the population on South Trinidade Island has declined since the early part of this century, 2) the lower numbers of nesting light morph individuals, which were formerly the best represented, are now the ones less often encountered, and 3) the highly skewed morph ratios of birds seen off of North Carolina support the hypothesis of continued declines in the numbers of white morph individuals for the last several decades.

The vulnerability of petrels and their extinction rates in the Atlantic and Caribbean are well known. At least three species have been exterminated from Saint Helena since man first discovered that island (Olson 1975). The Jamaican Petrel (*P. caribbea*) is assumed to be extinct (van Halewyn and Norton 1984), and the four remaining *Pterodroma* of the North Atlantic are all species of major conservation concern, with Black-caped Petrel (*P. hasitata*) on the top of the Partners in Flight 'Watchlist' (Carter *et. al.* 1996). Declines of other seabirds nesting on South Trinidade Island have been described by Olson (1981) and Williams (1984). Of two endemic subspecies of frigatebirds, the Great Frigatebird (*Frigata minor nicolli*) no longer breeds on the island, and the Lesser Frigatebird (*F. ariel trinitatis*) is reduced to 25 to 50 pairs. Red-footed Boobies (*Sula sula*) were reduced to two small colonies totalling less than 100 pairs, and the population of White Terns (*Gygis alba*) was lower than suggested in earlier accounts. All available information indicates that the South Trinidade petrel(s) are in serious decline. Populations are in need of updated assessments, taxonomic issues need to be addressed, and conservation action is warranted.

Acknowledgments

I thank Storrs Olson for access to his field notes. Chris Haney and Larry Spear reviewed an earlier version of this manuscript, Ricky Davis provided information on color morph of birds seen off North Carolina in 1996 and 1997, and David Johnston shared information on the Virginia reports.

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Two Sight Records of Kirtland's Warbler from North Carolina

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Kirtland's Warbler *(Dendroica kirtlandii)* is a critically endangered species, the warbler with the lowest population currently known to breed in the United States or Canada (Dunn and Garrett 1997). North Carolina lies directly between the breeding grounds, centered in northern Michigan, and the wintering grounds in the Bahamas. Although there is some evidence to suggest that North Carolina is on the normal migration route (Potter and Radovsky 1992), there are only a handful of sightings from the state; the majority of reports are from farther south, from South Carolina to Florida (Dunn and Garrett 1997). This paper presents details of two sightings of Kirtland's Warbler from the North Carolina mountains in 1995, with notes on other reports from the state and the current status of the species.

Spring Sighting

On 20 May 1995 Chris Eley, Lori Moilanen, Doug Shadwick, Julia Shields, and I were driving down the Blue Ridge Parkway through the Great Balsam Mountains (southwest of Asheville, N.C.), in mixed deciduous/spruce-fir forest at about 1615 m elevation, looking for typical high-elevation birds. Around 11:15 am we were a short distance past milepost 426, between Rough Butt Bald Overlook and Haywood Gap in Jackson County, N.C., when our trip leader, Doug Shadwick, thought he heard a Blackburnian Warbler *(Dendroica fusca)* song. We pulled to the shoulder, got out, and soon found the Blackburnian. In short order we also saw a Canada Warbler *(Wilsonia canadensis)* and a Blue-headed Vireo *(Vireo solitarius)*. Then we noticed a bird fly across the parkway and land on a branch of a 10-meter tall, fairly open Northern Red Oak *(Quercus rubra)* tree right beside the parkway shoulder. It posed nicely for us in the sunshine as it bobbed its tail continuously. At first

Doug called out that it might be a Palm Warbler *(Dendroica palmarum),* but as we got a better view, we became puzzled and began calling out field marks, since we realized it was something none of us recognized. I had seen 37 species of warblers in various plumages in North Carolina, but this one resembled nothing in my experience.

The bird was about the size of a Blue-headed Vireo, with the shape of a Pine Warbler *(Dendroica pinus)* and the tail-bobbing behavior of a Palm Warbler. Its underparts were washed with yellow, except for the white vent and undertail coverts and brighter yellow throat. The flanks were finely streaked with dark gray-brown; the streaking extended across the breast creating a necklace effect, much finer and less bold than on a male Canada Warbler. As the bird sluggishly foraged 8 meters up in the oak tree, it turned so we could get a good view of the upperparts. They were mostly gray-brown from head to tail, including the rump, except for the back, which was streaked alternately gray and brown. The tail was notched. I thought I saw a hint of a white spot in the tail, but the bird never fanned its tail for us. Wingbars were not noticeable. There were thin, pure white crescents above and below the dark eye and a hint of a darker line through the eye. The bill, legs, and feet were black; the bill was average sized and shaped for a warbler. The bird made no vocalizations. We studied the bird in the sun and shade at a distance of about 8 meters. After perhaps 4 minutes we lost the bird; we could not relocate it later in the day.

After the sighting we had our suspicions that the bird might be a Kirtland's Warbler, but the description and paintings in the field guide we had with us (National Geographic Society 1987) still left us unsure, since there was not an illustration or description matching exactly the bird we saw. We remained unsure until we consulted Curson *et al.* (1994), which has an illustration and description of first-year female Kirtland's Warbler (plate 11, figure 31c) that matches the bird we saw very closely.

Fall Sighting

On 23 September 1995 I was birding alone at Mahogany Rock, near the Mahogany Rock Overlook on the Blue Ridge Parkway (milepost 235), in Alleghany County, northwestern North Carolina. It was foggy and there was little bird activity in the mixed pine/hardwood forest on top of the hill, at an elevation of about 1160 m. At noon I heard a loud, low 'chip' and looked up to see an oddly familiar bird perched 2 meters up in a short Virginia Pine *(Pinus virginiana)* tree, 3 meters away from me, bobbing its tail. This bird looked almost exactly like the one I had seen on 20 May, so I immediately recognized it as a Kirtland's Warbler. Then panic began to set in, as I realized I was the only person seeing this bird and the North Carolina Bird Records Committee had not yet made its decision on the first sighting. They would never believe this one! I began rushing back to the parking lot, but realized I should probably get a longer look at the bird and make sure I had seen all the field marks I could. I returned to the bird, which was still sitting in the same spot, and studied it for about a minute until I was convinced it could not be anything else. I then proceeded to run down to the parking lot to alert others and have them confirm my identification. Fortunately this was the weekend of

the Carolina Bird Club meeting, so there were plenty of birders around, and the bird cooperated, staying in the same general area through 24 September. About 50 people saw this bird, including most of the N.C. Bird Records Committee. Unfortunately, the bird was not photographed.

The description in my field notes of this bird is nearly identical to that of the May sighting, with only minor differences. This bird appeared to be a large *Dendroica* warbler, with a bulky, long-tailed shape like a Pine Warbler. The forehead, crown, nape, ear coverts, side of neck, rump, uppertail coverts, wings, and tail were mainly a drab medium brown. The wings and tail were perhaps darker brown to blackish. The head was plain brownish above with thin white eye-crescents, nearly forming a ring but broken in front of and behind the eye. The back was streaked with dark gray longitudinal stripes, contrasting with the brown background. Two thin, buff to white wingbars were present. The tail was moderately long and held slightly fanned (flared out towards the tip), though not fanned out far enough to permit a view of the spot pattern in the tail. The underparts were washed with pale yellow, except for white vent and undertail coverts. The breast sides and flanks had fine brown longitudinal streaks. These streaks extended across the upper breast and onto the throat. The bill was mostly blackish, slightly paler near the gape, straight, and medium-sized for a *Dendroica* warbler. The legs and feet were blackish. The bird had a constant, vigorous, deep tail-bobbing and relatively sluggish foraging behavior. The only vocalization heard was a repeated loud, low, cardinal-like 'chip.' Colored leg bands were not detected on either the spring or the fall bird. Biologists have placed these bands on many individuals of the known population; their presence has even been postulated as a field mark (Dunn and Garrett 1997).

Elimination of similar species

Immature female Kirtland's Warblers are not the most distinctive birds, so it was important to eliminate several somewhat similar species before settling on the identifications. Other *Dendroica* warblers that may potentially be confused with Kirtland's include Magnolia *(D. magnolia)*, Pine, Prairie *(D. discolor)*, Palm, and Cape May *(D. tigrina)*. Following are some of the differences between these species and the two Kirtland's described here. Immature fall Magnolia Warbler is slightly similar, but has a yellow rump, conspicuous white bands in the middle of the tail (which is frequently fanned), and a gray head contrasting with olive-green upperparts. They are active foragers, do not habitually bob their tails, and are smaller. Pine Warblers have olive-green upperparts, an unstreaked back, a more contrasting face pattern, indistinct streaking on the sides, yellow or buffy eye-crescents, a large bill, and do not habitually bob their tails. Prairie Warblers have a strongly contrasting face pattern, olive-green upperparts, back not streaked with black, center of breast and throat not streaked, and yellow patches above and below the eye. They are active foragers, are smaller, and wag their tails much less vigorously and with more of a side-to-side motion. Palm Warblers have yellow undertail coverts, a contrasting face pattern with buffy or yellow supercilium, an olive-yellow rump, a dark malar stripe, and a weakly streaked back. Adult Cape May Warblers have a strongly contrasting face pattern, a yellow rump, and more prominent wingbars. They do not bob their tails, do not have white eye

crescents, and are smaller (Curson *et al.* 1994, Dunn and Garrett 1997, personal observation).

Other North Carolina reports and current status

These two sightings are the second and third records for North Carolina accepted by the North Carolina Bird Records Committee (NCBRC), moving the species from the Provisional List to the Official List (NCBRC 1996). The first accepted record is a sighting from Iredell County on 29 August 1982 (Weisbecker 1987). In addition to the three accepted records, there are four unaccepted reports. While the description in Potter and Radovsky (1992) of a bird seen on Ocracoke Island, Hyde County, on 28 September 1991, is consistent with that of a Kirtland's Warbler, this report was not accepted (NCBRC 1992, NCBRC 1993). Three reports with sparse details from a single observer in Rocky Mount between 1936 and 1941 (Potter and Radovsky 1992) were also not accepted (NCBRC 1992).

The critically endangered Kirtland's Warbler is one of the success stories of endangered species recovery (Solomon 1998). The first two censuses of singing male Kirtland's Warblers on their breeding grounds in Michigan in 1951 and 1961 found 400-500 males, but the third census in 1971 found a precipitous drop to 201. In annual censuses from 1972 on, the number of singing males remained steady at about 200 through 1989, despite the implementation of Brown-headed Cowbird *(Molothrus ater)* trapping and some efforts at habitat improvement. Without these efforts, Kirtland's Warbler could have become extinct (Solomon 1998). Kirtland's Warbler numbers are generally believed to be limited by the availability of suitable breeding habitat, which is restricted to stands of young (6-20 year old) Jack Pine *(Pinus banksiana)* (Sykes and Clench 1998). By 1990, the efforts to increase the amount and quality of suitable breeding habitat began to pay off, perhaps combined with an increase in suitable wintering habitat (Haney *et al.* 1998). The population of Kirtland's began to climb steadily beginning in 1990 to an all-time high of 765 singing males in 1995 (Solomon 1998). Knowing this, it is not quite so surprising that 1995 was the first year that Kirtland's Warblers were seen in North Carolina in both spring and fall. The population of singing males remained fairly steady at 693, 733, 805 from 1996-1998, but increased to 903 in 1999 (United States Forest Service 1999). I hope the two sightings presented in this paper are a sign of things to come.

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Bob Wood served as editor for this note.

CAROLINABIRDS

Carolinabirds is an Internet e-mail discussion group about birds and birding in the Carolinas. Subscribers frequently post sightings to it similar to those found in Briefs for the Files, but unusual behavior receives more attention. Subscriptions are free. To subscribe, address an e-mail message to <majordomo@duke.edu>. Don't fill in the subject line. As your message, simply put, "subscribe carolinabirds" (without the quotes). You will receive a confirmation and more information shortly. Submissions for Briefs for the Files should be sent directly to Ricky Davis.

BRIEFS FOR THE FILES

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All Dates Summer 1999

Briefs for the Files is a seasonal collection of uncommon-to-rare or unusual North and South Carolina bird sightings and events which do not necessarily require a more detailed field note or article. Reports of your sightings are due the 20th of the month after the end of the previous season.

Winter:	December 1 - February 28, due March 20
Spring:	March 1 - May 31, due June 20
Summer:	June 1 - July 31, due August 20
Fall:	August 1 - November 30, due December 20

Reports can be submitted in any format, but I prefer that you type them and list the sightings according to the birds in checklist order (not according to dates or locations). If you submit your report to me through e-mail, please type your report directly into the message or copy it from a word processing program directly into the message. You may also attach your file to the e-mail, but if you do, please let me know the program used and also send a second version saved as a text (.txt) file.

Suitable reports for the Briefs include any sightings you feel are unusual, rare, noteworthy, or just plain interesting to you in any way! It is my responsibility to decide which reports merit inclusion in the Briefs.

Please be sure to include details of any rare or hard-to-identify birds.

I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me as described above.

If I feel that your sighting warrants a field note, I will contact either you or the appropriate state field notes editor. You may, of course, submit your field note directly to the editor without going through me.

COMMON LOON: Summer occurrences of this species are annual in the Carolinas. This year one on Price Lake, Watauga County, NC, June 12-13, (Dwayne and Lori Martin), provided a rare mountain sighting. More expected were one near Oriental, NC, June 30-July 1(Jim Ward) and one at Cape Hatteras Point, NC, June 30 (Steve and Tracy Shultz), the latter being in alternate plumage!

HERALD (TRINIDADE) PETREL: This species has been found quite regularly off North Carolina the last couple of years, probably due to the increased number of boat trips. This summer, off Hatteras two dark phase birds were found June 6, and one dark phase was seen July 17 (Brian Patteson *et al.*).

BLACK-CAPPED PETREL: The peak count off North Carolina this summer was 372 off Hatteras July 24 (Patteson *et al.*). Much rarer was one found off Murrells Inlet, SC, June 26 (Jack Peachey *et al.*), providing one of only a handful of reports for that state.

SOOTY SHEARWATER: Quite rare in summer, one was seen off Hatteras, NC, July 24 (Patteson *et al.*). This species normally moves out of our waters on its northward migration by mid to late June.

MANX SHEARWATER: This species is regular (in small numbers) in late spring and early summer off our coasts. Only one was reported this summer, off Hatteras June 6 (Patteson *et al.*).

AUDUBON'S SHEARWATER: The peak total for the summer was a very impressive 1035 off Hatteras, NC, July 17 (Patteson *et al.*).

WILSON'S STORM-PETREL: One was unexpected (no storm at the time) along the coast in Bogue Sound, near Morehead City, NC, June 20 (John Fussell).

WHITE-FACED STORM-PETREL: One individual of this rare pelagic species was found this summer, off Oregon Inlet, NC, July 31 (Paul Guris *et al.*).

LEACH'S STORM-PETREL: The peak count this summer was 62 off Hatteras, NC, June 6 (Patteson *et al.*). Much more unusual was one found dead on the beach near Charleston, SC, June 10 (Eric Graves, *fide* Will Post), providing only the third specimen for that state.

BAND-RUMPED STORM-PETREL: South Carolina's second verified record of this species involved one found beached (later died) on Fripp Island, Beaufort County, June 2 (Ben Ten Eyck, *fide* Will Post). Also the peak North Carolina pelagic total was 71 off Hatteras July 24 (Patteson *et al.*).

WHITE-TAILED TROPICBIRD: Reports of this species picked up a little this summer, as compared to the past couple of years. Singles were found off Hatteras June 5 and 25, and off Oregon Inlet July 19 (Patteson *et al.*). Two were seen off Hatteras July 17 (Patteson *et al.*).

NORTHERN GANNET: Lingering young gannets included one-to-two off Murrells Inlet, SC, June 26 (Jack Peachey *et al.*) and one off Hatteras, NC, July 17 (Patteson *et al.*).

BROWN PELICAN: One was quite unusual and unexpected inland at the Stevens Creek Dam, near the Savannah River, Edgefield County, SC, July 31, as noted by Mike Turner.

ANHINGA: Anhingas were found at several new inland sites this summer. One was over Kinston, NC, June 13 (John Fussell), and one was along the Sapony Creek arm of the Tar River Reservoir in Nash County, NC, July 29 (Ricky Davis).

MAGNIFICENT FRIGATEBIRD: This summer's sightings of this annual visitor included one at Buxton, NC, June 2 (David Dunmore), one near Avon, NC, June 15 (Marcia Lyons), and one at Litchfield Beach, SC, July 5 (*fide* Taylor Piephoff).

GREAT EGRET: Post-breeding dispersal of long-legged waders seemed to come earlier than normal this summer, as evidenced by 52 Great Egrets at Jordan Lake, NC, June 12 (Jeff Pippen). Could the cold, wet weather during the spring breeding season have caused the early dispersal?

REDDISH EGRET: This summer's reports came from the usual areas for this species and included one immature at Huntington Beach State Park, SC, July 17 (Jack Peachey *et al.*), one immature at Sunset Beach, NC, July 31 (Will Cook), and two adults near Cape Lookout, NC, July 31 (John Fussell *et al.*).
YELLOW-CROWNED NIGHT-HERON: A new Forsyth County, NC, breeding location was discovered this year. One nest was found in the Old Salem area during June-July (*fide* Ramona Snavely). Also of note were two adults at the Little Creek Impoundment, Chapel Hill, NC, June 16 , as noted by Rob Gluck.
ROSEATE SPOONBILL: One immature was a good find on Kiawah Island, SC, in early July (*fide* Dennis Forsythe).
WOOD STORK: The Sunset Beach, NC, summering population arrived a little earlier than usual this year with an excellent count of 25 as early as July 4 (*fide* Taylor Piephoff).
RING-NECKED DUCK: Lingering Ring-necks involved singles at a pond east of Rocky Mount, NC, June 6 and another at a pond south of Tarboro, NC, June 13-July 11 (Ricky Davis).
BLACK SCOTER: A female was found on the beach in a slightly oiled condition on Sullivan's Island, SC, June 6 (Steve Compton).
HOODED MERGANSER: Two immatures in Sumter County, SC, June 2 probably represented locally reared young (Lex Glover).
RUDDY DUCK: A female on Lake Hickory, Caldwell County, NC, July 24 probably was a wandering non-breeder (Dwayne and Lori Martin).
MISSISSIPPI KITE: Laurinburg, NC, has become the spot to find nesting kites in that state. In addition to the original nest site (which reared at least one young), another colony was found at the Scotch Meadows Golf Course, where five kites were seen to be actively building a nest July 26 which apparently failed (Barbara Gearhart). In other breeding news, one nest was found in Roanoke Rapids, NC, and at least one young was raised (*fide* Frank Enders). Other kite reports included one near Jordan Lake, June 27 (Will Cook) and one in Raleigh, NC, July 23 (Derb Carter).
SHARP-SHINNED HAWK: Summer reports of this species are always noteworthy in the Carolinas. Single Sharpies were observed near Apex, NC, July 3 (Will Cook), in Charlotte, NC, July 2 (Phil Warren), and in Durham County, NC, during June and July (Jeff Pippen). Most importantly, breeding was noted in the Weymouth Woods Preserve, Southern Pines, NC, July 11, where two adults were seen with food at a nest (Scott Harley).
COOPER'S HAWK: Cooper's Hawks were reported throughout the Carolinas this summer, indicating that this species continues to increase in our area. Breeding evidence included two fledging in Raleigh, NC, June 22 (Joseph Covington) and four fledging in the Asheville, NC, area in early July (Len Pardue).
SANDHILL CRANE: The flock of 12 Sandhills noted in Carteret County, NC, during the spring were still present throughout June and early July. It turns out that these birds were from the Patuxent Wildlife Research Center's breeding program and for some reason did not make it back north after the winter season. The birds were monitored by Center staff and apparently were recaptured July 20-21 and returned to the Center (John Fussell).

AMERICAN AVOCET: Locally unusual and out of habitat was one Avocet at the jetty pond at Huntington Beach State Park, SC, July 13 (Jack Peachey). The bird was also found July 29 along the causeway there (Bob Maxwell).
WILLET: This species turned up in some unusual locations this summer. One was far to the west at Hooper Lane, NC, July 18-19 (Wayne Forsythe and Marilyn Westphal), providing a very rare local report. Another inland Willet was found at the Silver Bluff Audubon Sanctuary, Aiken County, SC, July 19-22 (Paul Koehler, *fide* Anne Waters). And finally one was far to the east when observed offshore of Hatteras, NC, July 24 during a pelagic trip (Brian Patteson *et al.*).
LONG-BILLED CURLEW: The only one reported this summer was found on Shackleford Banks, Carteret County, NC, June 29 (Nell Moore).
HUDSONIAN GODWIT: Quite rare for South Carolina was one slightly early at the Savannah Spoil Site, Jasper County July 27, as noted by Steve Calver.
WESTERN SANDPIPER: Inland reports included three at Claremont, NC, July 14 (Dwayne and Lori Martin), two at Hooper Lane, NC, July 19 (Wayne Forsythe), and two near Robersonville, NC, July 25 (Ricky Davis).
PECTORAL SANDPIPER: One at the Savannah Spoil Site, Jasper County, SC, June 23, was probably a very early fall migrant (Steve Calver).
DUNLIN: One in alternate plumage was at Huntington Beach State Park, SC, on the extremely early date of July 4 (Jack Peachey, Gary Phillips, and Paul Rogers).
STILT SANDPIPER: One was locally rare at Hooper Lane, NC, July 18 (Wayne Forsythe). On the coast where much more expected, a likely record count for the Carolinas of 898 Stilt Sandpipers was had at the Savannah Spoil Site, SC, July 27 (Steve Calver).
SHORT-BIILLED DOWITCHER: Noteworthy mountain area reports included one at Jackson Park, Hendersonville, NC, July 13 (Ron Selvey, *fide* Wayne Forsythe) and one at Hooper Lane, NC, July 17-18 (Wayne Forsythe and Marilyn Westphal).
LONG-BILLED DOWITCHER: Rare July occurrences included one adult inland at the Winslow Sod Farm, Scotland Neck, NC, July 25 (Ricky Davis) and one offshore of Hatteras, NC, July 25 (Brian Patteson *et al.*).
COMMON SNIPE: One at Hooper Lane, NC, July 14 (Wayne Forsythe and Ron Selvey) was so early (if a fall migrant), it defied explanation!
WILSON'S PHALAROPE: The peak summer count at the Savannah Spoil Site, SC, was five on July 27 (Steve Calver).
RED-NECKED PHALAROPE: A rare onshore sighting was of one at the Savannah Spoil Site, SC, June 12 (Steve Calver), most likely a late spring migrant.
SOUTH POLAR SKUA: There were a good number of sightings this summer. Two to three were off Hatteras, NC, June 6 and another was found July 25 (Brian Patteson *et al.*). Much more rare and unexpected was one off of Murrell's Inlet, SC, June 26 (Jack Peachey *et al.*).
LAUGHING GULL: An adult in basic plumage was found at Jordan Lake, NC, July 5 (Ricky Davis), probably representing a non-breeding wanderer.
FRANKLIN'S GULL: Quite a surprise was the adult breeding-plumaged Franklin's found with Laughings at the Hatteras Inlet Ocracoke Ferry Terminal

on the date of July 3 (John Weske). One wonders what was this bird doing on the east coast at this time of the summer?

ROSEATE TERN: Rare at any time in the Carolinas, a Roseate Tern was found offshore of Oregon Inlet, NC, June 4 (Brian Patteson *et al.*). This species is almost never found away from the immediate coast.

COMMON TERN: Two on Lake Hickory, Catawba County, NC, July 22 (Dwayne and Lori Martin), were considered to be locally unusual.

FORSTER'S TERN: Also locally unusual was one Forster's near Margaret in eastern Franklin County, NC July 5, as noted by Ricky Davis.

EURASIAN COLLARED-DOVE: Another location was added to the list of sightings for this species when one was seen at the Cherry Hospital, Wayne County, NC, June 26 (Eric Dean and Gene Howe).

COMMON GROUND-DOVE: Very unusual were two seen flying along NC 32 south of Plymouth, NC, June 7 (Jack Peachey and Paul Rogers). This area is considerably north and inland of where the species used to be found in that state.

BLACK-BILLED CUCKOO: An adult near Orrum, Robeson County, NC, July 27 is just another in a long list of weird locations and dates for this unpredictable species (*fide* Susan Campbell).

RUFOUS HUMMINGBIRD: An adult male was somewhat early at a Chapel Hill, NC, feeder July 7-9 (Janice Bloch, *fide* Taylor Piephoff), for the only report received.

YELLOW-BELLIED SAPSUCKER: One in a yard in Whispering Pines, NC, during the first week of July (Audry Parowski, *fide* Susan Campbell) defies explanation. Was this a mixed-up migrant or just a non-breeding wanderer?!

GRAY KINGBIRD: Reports came from the usual areas with one at Caswell Beach, NC, June 5 (Brad Carlson and Diane DelleDonne) and Cape Hatteras, NC, June 25 (John and Paula Wright).

SCISSOR-TAILED FLYCATCHER: The Outer Banks of North Carolina had the only reports with one at Cape Hatteras Point June 15 (Pat Moore *et al.*) and one at Ocracoke July 18 (*fide* Keith Watson).

RUBY-CROWNED KINGLET: One was found dead in Raleigh, NC, on the very early date of July 29 (*fide* Susan Campbell). There are several previous August records for the area, but this one is definitely out of season.

SWAINSON'S THRUSH: One singing in an Asheville, NC, suburb from late May to early June was very intriguing (Alex Netherton). It was probably a late migrant, but the species does breed not too far away in the southern Virginia mountains.

YELLOW WARBLER: Two at the Savannah Spoil Site, SC, June 4 (Steve Calver) were most likely late migrants.

BLACK-AND-WHITE WARBLER: One singing on territory in northern Moore County, NC, June 6 was along the known eastern edge of the piedmont breeding range (Jeff Pippen and Derb Carter).

WORM-EATING WARBLER: Three on territory at Morrow Mt. State Park, NC, June 11 (Mark Johns) were considered to be at the edge of the breeding range.

LOUISIANA WATERTHRUSH: A singing Louisiana at Huntington Beach State Park, SC, June 3 (Jack Peachey and Gary Phillips) was considered to be

a late migrant, but this species is usually in the middle of breeding activities by early June. One wonders if rare breeding by this species occurs in the outer coastal plain area of that state from time to time, like it does in nearby North Carolina.

SCARLET TANAGER: One was singing near Catherine's Lake, Onslow County, NC, June 29, as noted by Nell Moore. This is definitely far to the east for this species during the breeding season.

HENSLOW'S SPARROW: John and Paula Wright once again conducted surveys of singing males at the two VOA sites near Greenville, NC. This year, at VOA-A (Beaufort County), 76 males were counted June 5. And at VOA-B (Pitt County), 50 males were tallied June 6.

SONG SPARROW: A male was observed singing in Southern Pines, NC, June 3&7 (Susan Campbell). This being on the extreme eastern edge of the potential breeding range, no second bird or nesting evidence was observed.

WHITE-THROATED SPARROW: One was very late at Raleigh, NC, on the date of June 16 (Erik Thomas).

PAINTED BUNTING: One was slightly past the northern limit of the known breeding area at the Cedar Island NWR headquarters, Carteret County, NC, June 2 (Josh Rose).

DICKCISSEL: Fewer Dickcissels were found during this summer in the Carolinas than in the past several years. A couple of easterly sightings included single males at Cedar Island NWR, NC, June 2 (Josh Rose) and near Pettigrew State Park, Tyrrell County, NC, June 19 (Scott Hartley *et al.*).

BOBOLINK: Always noteworthy during the summer in the Carolinas, Bobolink reports included three near Hooper Lane, NC, July 17 (one pair present since spring) (Wayne Forsythe and Marilyn Westphal) and a count of 20 at the usual Glendale Springs, Ashe County, NC, site June 6 (Will Cook *et al.*).

SHINY COWBIRD: North Carolina sightings included a male at the Ocracoke Terminal of the Cedar Island-Ocracoke Ferry June 7 (Wayne Irvin) and another male at Lola, near Cedar Island June 30 (Nell Moore and Jim O'Donnell). In South Carolina, one male was on Sullivans Island June 13 (Willy Hutcheson), and an astounding flock of 18 was found at the Savannah Spoil Site July 1-2 (Paul Sykes and Steve Calver). This flock was probably the largest found outside of Florida and does not bode well for the future of our native nesting passerines.

BALTIMORE ORIOLE: One was a very late migrant(?) in southwestern Orange County, NC, June 12, as noted by Will Cook.

RED CROSSBILL: Excellent numbers were found at several sites in the mountains this summer. Twenty were in the Devil's Courthouse, NC, area June 5 (Bill and Barbara Gearhart), 26 were at the usual Mt. Mitchell, NC, spot July 7 (Simon Thompson *et al.*), and 25 were at the Ridge Junction Overlook on the Blue Ridge Parkway (near the Mt. Mitchell entrance) July 23 (Dwayne and Lori Martin). In South Carolina, one was south of the Cherry Hill Recreation Area, Oconee County, June 15 (Dennis Forsythe).

> Effective scientific prose is accurate, clear, economical, fluent, and graceful.
>
> *Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers*, 6th ed., Cambridge University Press, 1994. P. 101.

About *The Chat*

The Chat is the quarterly publication of the Carolina Bird Club. Its purpose is to encourage the understanding of the birds of the Carolinas. A typical issue contains one or two articles, a report from a bird count or from a Bird Records Committee, one or more "General Field Notes," and Briefs for the Files. The Executive Committee of the Carolina Bird Club serves as *The Chat*'s editorial review board, with advice from the Publications Committee. The circulation of *The Chat* is currently around 1,300.

Basic Standard

Manuscripts published in *The Chat* must be related to bird study and must have a nexus with the Carolinas.

Style and Format for Articles and General Field Notes

Manuscripts submitted for publication generally fall into one of two categories: Articles and General Field Notes. Articles tend to be longer than General Field Notes and generally involve a year or more of study. Articles may also include major summaries of existing records, such as a distribution summary of a species or an accounting of birds in a particular park or region. Most articles include figures and tables. General Field Notes are shorter, usually do not contain figures or tables, and usually involve a single or limited number of observations. Documentation of a rare sighting, unusual behavior, significant nesting record, or a brief summary of several observations are typical examples of General Field Notes.

If you believe that your submission will be considered an Article, please submit three copies directly to me at the address shown on the inside front cover of this issue. If you believe that your submission is more likely to be considered a General Field Note, please send three copies to the appropriate state General Field Note Editor. Those editors are listed on the inside front cover of this issue as well. You may submit your manuscript to me simply on a diskette or as an e-mail attachment, but please include one copy in Word or WordPerfect and one copy as a text (.txt) file. Please indicate on the diskette or in the body of the e-mail message the word processing program you used. Beware that tables and figures rarely do well in electronic form and that you are better served submitting hard copies of those.

Here is how the General Field Note Editors, reviewers, and I like to receive manuscripts. This style and format is not required, especially for General Field

Notes, as we would much rather have the manuscript and format and edit it ourselves than to have a significant observation left unpublished.

The Chat for the most part follows *Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers*, 6th ed., Cambridge University Press, 1994. This is the style generally followed by *North American Birds*, so the styles of the two publications are quite similar.

Your manuscript should be double-spaced. Don't hyphenate, and don't use hidden formatting such as widow-orphan protection or hanging indents in the "Literature Cited" section. It is simple enough for me to do that once your diskette reaches my desk. Be sure to refer to each figure and table in your text. Use common bird names as found in the 7th edition (1998) of *American Ornithologists' Union Check-list of North American Birds*. Capitalize bird names. Follow the first reference to a bird with its scientific name. Each reference cited in the text must appear in the "Literature Cited" section, and each listing in the "Literature Cited" section must be cited in the text. Don't use footnotes.

Longer manuscripts will be easier to follow if divided into sections. Common section headings are Introduction, Methods, Results, Discussion, Suggestions for Further Study, Acknowledgments, and Literature Cited.

The General Field Note by Will Cook on his two Kirtland's Warbler observations (page 21 of this issue) provides an outstanding example of a well-written field note.

Note these defined expressions:

Record: An observation of a bird that has been accepted by the North or South Carolina Bird Records Committee. Records accepted only by other authorities should be so noted.

Report: An observation of a bird, whether accepted or not. This even includes photographs of a bird if the sighting has not yet been accepted by a Bird Records Committee.

Your title page or cover letter should include your current mailing address, telephone number (work and home), and e-mail address. If the paper has multiple authors, please designate the author to whom editors should send correspondence. Please also suggest a shortened title for the header as it will appear in *The Chat*.

Review Process for Articles and General Field Notes

The appropriate editor will determine whether the topic and treatment are potentially appropriate for *The Chat* and, if so, review the manuscript or have it reviewed by another. All papers published as Articles are sent for outside review. Whether a field note is reviewed by someone other than the General Field Notes Editor is entirely within the discretion of that editor, but generally the criteria relate to matters such as the General Field Notes Editor's expertise with respect to the specific subject matter, the significance of the subject matter, and the potential for a challenge to the submission's validity.

You should expect to receive correspondence confirming receipt of the manuscript within two or three weeks of the mailing of the manuscript, or sooner if you submit an e-mail address.

Reviewers (whether General Field Notes Editors or outside reviewers) will judge the merits of a manuscript on grounds of originality, importance for the readers of *The Chat*, substantive merit, and more.

You should expect some changes to be suggested (or required) for your manuscript. Once the review process is complete, a marked copy of the manuscript will be sent to you showing the proposed changes. Comments on Articles are also put onto a form answering some of the questions listed below. If you accept the proposed changes, please return the marked copy to the appropriate editor with a short note indicating approval. If the changes are slight and you accept the revisions with only few additional changes, return the paper with a diskette of the manuscript in PC format, or send it to the reviewing editor. If your manuscript was prepared on a Macintosh computer, please put it on a PC-formatted diskette as follows:

- ➤ Run the program "Apple File Exchange" that came with your Macintosh operating system.
- ➤Insert a DOS-formatted diskette. (Don't use one of your Mac-formatted diskettes.)
- ➤Use the Apple File Exchange program to copy the file from your hard drive onto the diskette.
- ➤When you finish and quit the program, the diskette is ejected, ready for shipping off to the editor.

Papers on Mac-formatted diskettes will be accepted, but please expect a delay.

If you don't have a computer, let the editor know, and he will find a way to get your manuscript on one, but expect a delay.

Rules for Reviewers

When proposed articles are submitted for outside review, reviewers are instructed to keep the manuscript confidential and are asked to respond within three weeks and to note any conflicts of interests they might have. Most importantly they are asked to make specific comments on the paper's suitability for publication, style of presentation, interest to readers of *The Chat*, scientific soundness, originality, length, methods, data presentation, statistical design and analysis, errors, and citations. Reviewers are promised anonymity.

Briefs for the Files

"Briefs for the Files"" is a listing of interesting bird observations, compiled and reviewed by Ricky Davis. See the first page of the Briefs in this issue for more information. Ricky is always glad to help you decide whether to go beyond submitting a sighting for Briefs for the Files and write it up as a General Field Note.

Other Material

The Chat will also publish book reviews of particular interest to birders in the Carolinas. Space for commentaries on published articles and on *The Chat* in general is also being considered.

Conclusion

The beginning of most papers is not typing the word "introduction." Instead, most papers begin when someone decides to grab a pair of binoculars and go birding. The next step is almost always serendipitous: The birder notices something unusual about a bird or simply begins pondering an idea while moving to the next good birding spot. Only much later comes the research and the paper itself.

Thus, for the most part *The Chat* is written by members and friends of the Carolina Bird Club as a result of their having gone birding one day. Most would agree that the effort and expense of getting these observations, ideas, and research turned into papers and then put into print are our most significant contributions to the world of science.

Bob Wood
Editor

Carolina Bird Club Web Site
www.carolinabirdclub.org

CAROLINA BIRD CLUB

MEMBERSHIP

The Carolina Bird Club, Inc. is a non-profit educational and scientific association founded in 1937. Membership is open to those interested in the study and conservation of wildlife, particularly birds. Dues, contributions, and bequests to the Club may be deductible from state and federal income and estate taxes. Checks should be made payable to Carolina Bird Club, Inc. and sent to CBC Headquarters, 11 West Jones Street, Raleigh, NC 27601-1029.

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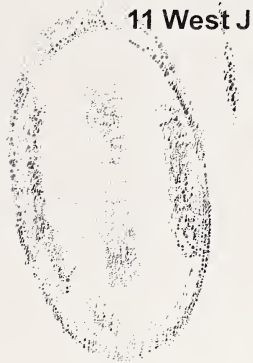
The Chat

(USPS 101-020)

Periodicals Postage Paid
At Raleigh, NC 27676-9651

Quarterly Bulletin of Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas
11 West Jones Street, Raleigh, NC 27601-1029



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The Chat

Vol. 64 SPRING 2000 No. 2

The Quarterly Bulletin of the Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas

THE CHAT

(USPS 101-020)

Vol. 64 SPRING 2000 No. 2

Published by The Carolina Bird Club, Inc.

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THE CHAT is published quarterly for $20.00 by the Carolina Bird Club, Inc., with headquarters at the North Carolina State Museum of Natural Sciences, 11 West Jones Street, Raleigh, NC 27601-1029. Second-class postage paid at Raleigh, NC. POSTMASTER: Send address changes to The Carolina Bird Club, THE CHAT, 11 West Jones Street, Raleigh, NC 27601-1029.

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Cover (American Robins) by Bill Duyck, Asheville, NC

Status and Distribution of the Common Ground-Dove in South Carolina

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Introduction

In 1949, the status of the Common Ground-Dove (*Columbina passerina*) in South Carolina was described as a "common permanent resident in the southeastern half of the State, less frequent in the interior" (Sprunt and Chamberlain 1949). Even at that time the authors noted this dove was "much less common than years ago in places like Sullivan's Island, where removal of vegetation had reduced the breeding sites." Forty years later, the ground dove was considered to be a "fairly common but local resident on coast; most common on islands. Uncommon to rare away from coast...." (Post and Gauthreaux 1989). Within a few years, however, this assessment had changed. McNair and Post (1993) noted that ground doves were "locally fairly common on the sea islands, and locally uncommon on adjacent mainland, until about early 1970s. Starting in the mid-1970s, it declined precipitously; it is now rare to locally uncommon."

Declines have been noted elsewhere for this species in the Southeast. In North Carolina, at the northern edge of its breeding range, ground doves were almost extirpated as breeders by 1991 (LeGrand 1991). In Florida, where, along with Texas the largest numbers occur in the United States (Price *et al.* 1995), Ogden (1989) commented on "the near disappearance of this once common bird....even in remote regions of Everglades National Park...." In Alabama, Jones and Mirarchi (1988) noted a reduction of the species over the last 20-40 years, and it was recently designated a Species of Special Concern in that state (Jones and Mirarchi 1988).

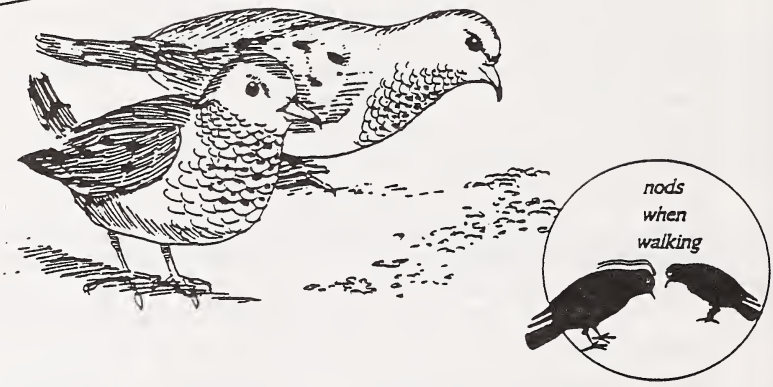
In response to reported ground dove declines in South Carolina and other southeastern states, the species was considered a threatened species "in need of management" by the South Carolina Department of Natural Resources in 1989. In 1993 we initiated a survey to better determine the status and distribution of Common Ground-Doves in South Carolina.

Methods

We began our survey in March 1993, by using a commercially-taped ground dove call played through a 12-volt, 32-watt amplifier and broadcast through two horn-type speakers mounted on a vehicle luggage rack. Taped playbacks have been effectively used to survey for various birds including

Sighting Reports Needed for...

GROUND DOVES



Ground Doves are sparrow-size (6-1/2") versions of Mourning Doves with short tails. In South Carolina this bird is confined primarily to the coastal islands and is apparently declining in numbers. Ground Doves are unwary around man and are often attracted to backyard bird feeders where they feed on the ground. Assistance can be especially helpful from the public in reporting sightings of any concentrations of these birds and their locations with regular occurrences.

For further information or to report sightings

please write or phone the
South Carolina Wildlife and Marine Resources Department,
Nongame Section, PO Box 167, Columbia, SC 29202.
Phone: (803) 734-3893 or Fax: (803) 734-3951

Fig. 1. Poster used to solicit Common Ground-Dove sightings in South Carolina

raptors (Fuller and Mosher 1981, Rosenfield *et al.* 1985), rails (Marion *et al.* 1981, Runde *et al.* 1990), grebes (Johnson *et al.* 1981), and bitterns (Swift *et al.* 1988). We played the tape for 5 min. at 0.3 km (0.2 mi) interval "stops." Based on field tests, the amplified calls were audible for distances of at least 0.4 km (0.25 mi) on each side of the vehicle in the open or semi-open habitats that represented most of the survey locations. Surveys were conducted on coastal islands, and in some cases the adjoining mainland, that represented a range of development intensities from none (South Island, Bull Island, Capers Island, Intracoastal Waterway (surveyed by boat), and Savannah River Spoil Site) to light to moderate (Huntington Beach State Park, Debordieu Beach, and Romain Retreat Development) to heavy (Pawley's Island, Sullivan's Island, Isle of Palms, Folly Beach, and Edisto Beach).

We also used in-house news releases and posters (Fig. 1) distributed statewide to newspapers, wildlife offices, and other appropriate outlets to solicit sighting information from birders, wildlife biologists, conservation officers, landowners, and the general public.

Results

From March through June 1993, we drove and boated nearly 100 km (60 mi) and made 250 survey stops. Only eight doves were recorded at five locations: Pawley's Island (2), Romain Retreat (1), Sullivan's Island (2), and Savannah River Spoil Site (3). Although some ground doves responded to the taped calls by flying near the vehicle or showing themselves in roads or openings, we never heard any doves call in response to the tape. We also believed that some doves were overlooked and either did not respond to the tape or were hidden from view since we knew they occurred in some of the survey locations. We concluded that amplified tape playbacks were an ineffective way to survey for ground doves and discontinued using this technique after 1993.

Between 1994 and 1996 we relied on reports from interested persons and the general public to document ground dove distribution in South Carolina. During this time we received reports from 64 locations in 24 counties (Fig. 2). No reports were received from six of the 28 coastal plain counties: Bamberg, Darlington, Dillon, Marion, Marlboro, and Williamsburg. The most inland report was one bird from Anderson County on 17 December 1994.

Most reports from the outer coastal plain were centered around high-growth areas - Beaufort, Charleston, and the Pawley's Island-Garden City beaches. Inland reports were mostly from the "farm belt" counties, especially Orangeburg, Lexington, southern Edgefield, Calhoun, Clarendon, Sumter, Allendale, and Hampton Counties. The latter two counties had more reports than any other inland counties. Relatively few reports came from the eight coastal zone counties away from the beaches and islands (Fig. 2). This area is heavily forested with little farmland and other open country. Few reports came from the Pee Dee area, despite this being one of the most intensively farmed regions in the state.

Ground doves were reported from all months of the year. However, three months, March, September, and December, accounted for 42% of the total. February, October, and November combined for the fewest reports, with only

13%. Reports of multiple birds during the nesting season (primarily April-June) suggested the possibility of nesting for the following counties: Jasper, Beaufort, Colleton, Charleston, Georgetown, Horry, Hampton, Allendale, Lexington, Orangeburg, Florence, and Chesterfield.

The number of birds reported was generally five or less, but nine locations, all of which but one were coastal, reported eight or more doves at one time: Myrtle Beach, Garden City, Huntington Beach State Park, Litchfield Beach, Pawley's Island, Sullivan's Island, Edisto Beach, Harbor Island, and Barnwell County. Sullivan's Island had the highest reported number at "18-28 doves at one time " (Paul Shaw, pers. comm.).

Discussion

Most ground doves reported during this survey came from the outer coastal plain. A number of sightings, however, were from inland localities where little ground dove documentation has occurred. Since ground doves have not been known to breed inland (Post and Gauthreaux 1989), the suggestion of breeding at several inland sites is significant. Possible inland breeding sites that warrant further investigation for confirmed breeding include the Eutawville area and sod farms in Orangeburg County; parts of Allendale and Hampton Counties, including the Webb Wildlife Center; central Sumter County; western Florence County on the Lee County border; southwestern Chesterfield County near McBee; and the Pelion area of Lexington County. A recent observation by Glover (April 1999) of two ground doves in southern Edgefield County at a location where ground doves have been seen before also suggests possible breeding at the most inland site in South Carolina. Some inland reports could also represent post-breeding vagrants, since it appears that some ground doves move inland in fall (Landers *et al.* 1977).

Like many columbids, ground doves are relatively weak-legged seed eaters that avoid dense vegetation and forage on bare or sparsely-vegetated ground. Inland habitats from which ground doves were reported included peach orchards, sod farms, livestock yards, peanut fields, young clearcuts, sandhills, dirt roads, "dove fields" and other fields. These habitats are all characterized as early successional, usually featuring some open or bare ground, and are consistent with habitat use reported by others. In southwestern Georgia, Landers and Buckner (1979) found ground doves nesting in 5-year pine plantations and feeding in small clearings with sparse herbaceous cover. Ground doves at inland sites in Alabama preferred old fields and young pine plantations and were strongly associated with sandy soils (Jones and Mirarchi 1988).

With most sightings coming from the southwestern coastal plain west of the Santee River and few from the Pee Dee area, the inland distribution of ground doves in South Carolina conformed with earlier literature. Interestingly, this distributional pattern is similar to that of the Painted Bunting (*Passerina ciris*; South Carolina Breeding Bird Atlas data, unpublished), another declining species that uses early successional habitat and is also most abundant on coastal islands and the outer coastal plain.

Few nests were found during this survey. One ground dove nest was reported and later confirmed, however, at a residence on Edisto Beach on 25

June 1994. The nest, with a sitting bird, was in the top of a palmetto tree (*Sabal palmetto*) by a living room window.

George and Judy Halleron (pers. comm.) of Harbor Island near Beaufort reported ground doves repeatedly nesting under houses on pilings, and one nest was located against a house on steps. "At least three dove broods in one summer/fall season" were found under a neighbor's house.

Sprunt and Chamberlain (1949) reported ground doves at coastal locations in South Carolina nesting on the ground as well as in bushes and small trees, especially wax myrtle (*Myrica cerifera*). Nesting was prolonged and occurred between February and October. Will Post (pers. comm.) suggested that, as in the Caribbean, ground doves in South Carolina may have a bimodal breeding pattern, correlated with spring and fall rains. As with Mourning Doves (*Zenaida macroura*), ground doves could breed throughout the year. Nests have been found in Georgia as late as December and as early as January (Landers and Buckner 1979). In south-central Florida, Bowman and Woolfenden (1997) found that ground doves nested from late February through early October, but 50% of all clutches were completed from early April to mid-May, with a slight increase from late August to early September.

Two significant ground dove populations were reported during this survey. One was on the southern end of Sullivan's Island, where Arch McCallum (pers. comm.) banded 78 birds between 1992-1996. He estimated the population to be composed of approximately 30 pairs. The habitat consists of about 30 ha (75 ac) of accreted dune fields interspersed with dense clumps of wax myrtle. The other large population was at Harbor Island in Beaufort County, a private resort development where George and Judy Halleron (pers. comm.) estimated 25 pairs of ground doves.

Since 1996 we have received additional ground dove reports, including several clarifying its inland range. Two were seen on 31 July 1999 in southern Saluda County in peach orchard habitat; one at Cheraw State Park in eastern Chesterfield County on 13 September 1999, and two in northeastern Williamsburg County on 31 January 1999.

We recognize the biases associated with a survey of this type, especially those related to unequal temporal and spatial coverage. Fig. 2 could actually show the distribution of observers rather than ground doves. We also recognize that some observers could have misidentified Mourning Doves as ground doves. In most cases, however, we were able to communicate directly with observers and only used reports that we felt were reliable. Given funding limitations and the fact that traditional field methods, such as the Breeding Bird Survey (BBS), are unsuitable for sparsely distributed species (we note, for example, that the ground dove map in Price *et al.* (1995), based on the BBS, shows no birds even occurring in South Carolina), we feel that a more intensive survey for ground doves is impractical at this time. We suggest that, based on the literature and previous ground dove reports, the map shown in Fig. 2 is a fairly accurate representation of current ground dove distribution in South Carolina.

Without comparative unbiased data, the status of ground doves in South Carolina remains difficult to ascertain. However, most observers and the recent literature agree that the species has declined in South Carolina. Nationwide, the

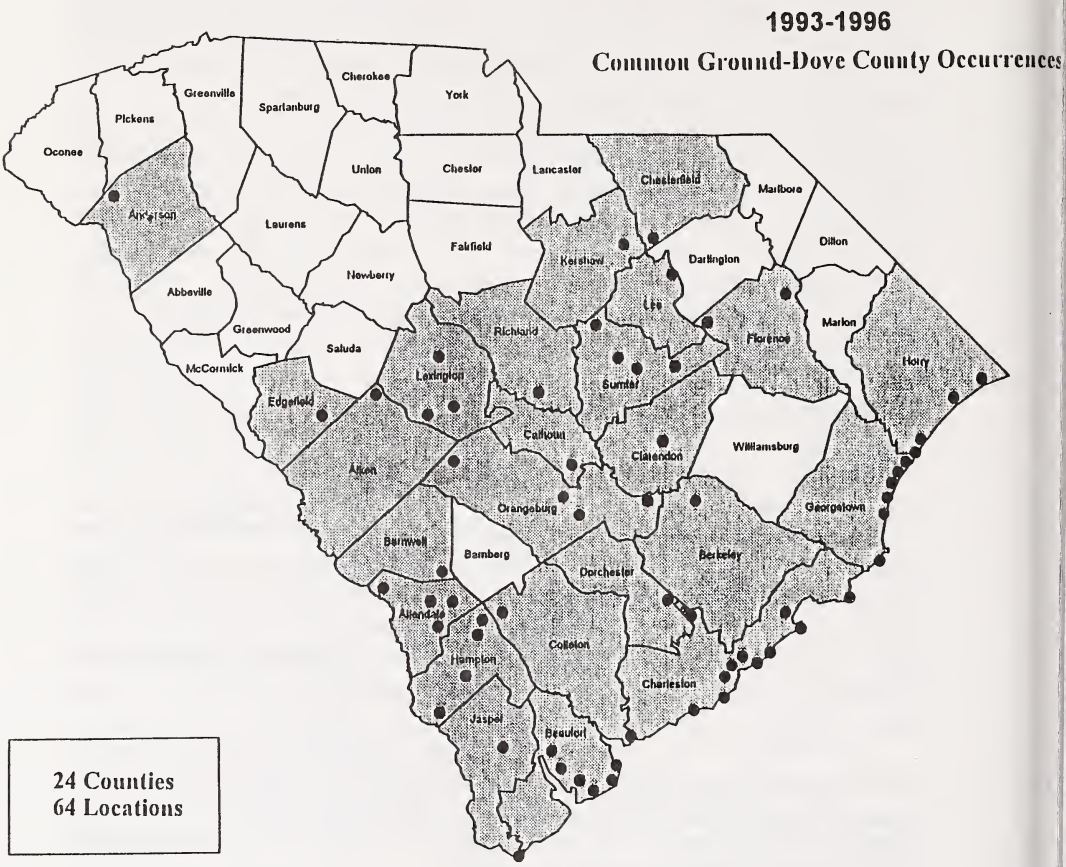


Fig. 2. Common Ground-Dove occurrences, South Carolina, 1993-1996. Each dot represents one or more birds

BBS shows a statistically significant population decline of 52% between 1966-1993, based on 199 survey routes (South Carolina routes had too few ground doves to be used in the analysis; Price *et al.* 1995). This decline has been evident throughout most of its range except for Texas. In contrast, a recent analysis of BBS trends between 1984-1993 shows a significant 41% increase, based on 163 routes (Price *et al.* 1995).

Ground dove populations in South Carolina, at or near the northernmost edge of the breeding range, may be especially susceptible to declines since peripheral bird populations are those at most risk during an overall decline (Wilcove and Terborgh 1984). We can only speculate at this time on the ground dove decline. As with most scrub and early-successional birds, habitat changes have undoubtedly played a large role. Scrub/shrub species like Northern Bobwhite (*Colinus virginianus*), Brown Thrasher (*Toxostoma rufum*), Loggerhead Shrike (*Lanius ludovicianus*), Golden-winged Warbler (*Vermivora chrysoptera*), Prairie Warbler (*Dendroica discolor*), Painted Bunting, Eastern Towhee (*Pipilo erythrophthalmus*), and Field Sparrow (*Spizella pusilla*) have all declined during the past 30 years, and few scrub birds are increasing (Price *et al.* 1995).

According to information provided by the US Department of Agriculture, National Agricultural Statistics Service, South Carolina had 2,014,800 ha (5,036,998 ac) in cropland in 1930, and the average farm size was 28 ha (70 ac); in 1997 cropland acreage had been halved to 985,127 ha (2,462,818 ac), while average farm size had nearly tripled to 78 ha (196 ac). The smaller farms of the first part of the 20th century provided optimum habitat for quail and other early successional wildlife, probably including ground doves. Much farmland since World War II has been abandoned and reverted to second-growth forest in South Carolina, creating unsuitable conditions for birds that need early successional habitat.

Habitat conditions on South Carolina's sea islands and beaches are now critical, since this area supports the largest number of ground birds in the state. Like inland locations, agriculture, primarily "truck crops," was historically dominant on many islands until resort development became prevalent 40 years ago. The impact of urban development on South Carolina's sea islands and its effects on ground doves is unclear at this time. As long as some scrubby and open conditions are maintained, ground doves could co-exist with development, especially since bird feeding is a popular activity at these locations and ground doves readily come to feeders. On the other hand, the prevalence of free-roaming cats that accompany development could have negative impacts on ground doves, which spend much time on the ground and may be especially vulnerable to predation. For example, one observer reported a ground dove killed by a cat during this survey. A recent news article brought to our attention the trapping, neutering, and releasing of feral cats at Hilton Head Island, an increasingly popular practice nationwide called "TNR" by the American Bird Conservancy (Linda Winter, pers. comm.).

Both of the largest ground dove populations reported during this survey came from developed sea islands, although this could be a bias reflective of the lack of observers from undeveloped islands. Sullivan's Island, just north of Charleston, has been developed for at least 200 years, while Harbor Island in

Beaufort County is a relatively new development. We did personally conduct multiple surveys at three undeveloped coastal islands, Bull (Cape Romain National Wildlife Refuge), Capers (South Carolina Department of Natural Resources), and South Island (Tom Yawkey Wildlife Center) and found only one bird, at South Island. Peter Range, a wildlife technician for three and a half years at Cape Romain National Wildlife Refuge, found no more than three ground doves on Bull Island during his tenure there and believed that none actually bred on the island (Range, pers. comm.). Yet in 1966 T.A.Beckett reported a "colony" of about 15 nesting pairs, with eggs and young, at Bull Island (Parnell 1966).

Aside from cat predation, Jones and Mirarchi (1988) suggested two other mortality factors that could be affecting ground dove numbers – incidental hunting pressure and fire ants. Ground doves can be easily mistaken for Mourning Doves by dove hunters, and they reported at least 12 ground doves shot on one Georgia Wildlife Management Area hunt in 1985. During our survey Cely examined a ground dove that had been shot on a dove hunt in Lexington County and received a reliable report of another. The extent of incidental shooting of ground doves in South Carolina, suspected of being low, remains unknown.

The red imported fire ant (*Solenopsis invicta*) has been implicated in wildlife declines for many years, especially for ground-nesting birds such as Northern Bobwhite (Johnson 1961). Although fire ants have been responsible for the death of nestling birds, their overall impact on wild bird populations remains controversial and unclear (*cf.* Allen *et al.* 1993, Brennan 1993).

Excessive cold weather is another factor that could affect ground doves. Wayne (1910) reported "great numbers" of ground doves destroyed by an intense cold wave in the Charleston area on 13-14 February 1899. Wayne noted that even ten years after this event, dove recovery was slow.

Could coastal ground doves be affected by hurricanes? The eye of Hurricane Hugo, a category 4 storm that struck South Carolina on 21 September 1989, crossed Bull Island with wind speeds of 225 kph (140 mph) and a storm water surge of 6 m (20 ft). Bull and neighboring Capers Island, as well as South Island 43 km (27 mi) up the coast, were severely damaged. Since the storm struck at night, roosting birds may have been vulnerable to storm surges. Perhaps ground doves are poor colonizers that, once eliminated from an area, either by hurricanes or over-development, are slow to reoccupy it. Colonization may be further limited since, based on their distribution, ground doves appear to exhibit colonial or semi-colonial behavior, and it may take a minimum "threshold" of individuals to establish a breeding site.

Conclusions

Since ground doves no longer appear to nest in North Carolina (Lee 1999), South Carolina now has the northernmost Common Ground-Dove population in the East. Due to land use changes and coastal development, the species has probably been declining in South Carolina for some years. We believe that ground doves should remain a "threatened" species in the state and that the species warrants careful monitoring and observation. Further investigation of its status at inland sites, including confirmation of breeding, is desirable.

Demographic studies, especially the nesting success of individual populations, should be a high priority. We know that ground doves have high reproductive potential and may raise three or four broods a year (Sprunt and Chamberlain 1949, Bowman and Woolfenden 1997). Barring excess mortality and widespread habitat loss, this species should be able to maintain itself as part of South Carolina's avifauna for the foreseeable future.

Carolina Bird Club members and other birders can assist ground dove conservation efforts in South Carolina by keeping notes of sightings, locations, dates, and behavior. Nesting records would be especially helpful. Such records could be submitted to "Briefs for the Files" in the Chat or forwarded to the authors at South Carolina Department of Natural Resources, Sandhills REC, P.O. Box 23205, Columbia, SC 29224; email: BGlvr@clemson.edu; JCely@clemson.edu.

Acknowledgments

We thank everyone, too numerous to list, who provided ground dove reports used for this survey. Several individuals made contributions and reports deserving special mention including George and Judy Halleron, Bob Maxwell, Arch McCallum, and Will Post. We appreciate Steve Lohr, Will Post, and an anonymous reviewer, all of whom improved the manuscript.

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(704) 332-BIRD

1999 Spring Bird Count

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The 1999 Spring Count showed a major increase in participation over 1998: 16 count areas with 1,165 field hours in 1999 compared to 14 count areas with 814 field hours in 1998. This resulted in an increase in the number of birds reported: 75,781 individuals of 235 species in 1999 compared to 51,361 individuals of 199 species in 1998.We also had a record number of owling hours. Unfortunately owls still remained elusive. Avery County and Greenville, North Carolina, did not participate this year. Chapel Hill, Raleigh, and Columbia returned after being absent last year. Highlands is a new count. The weather in most count areas was dry and cool in the morning, with a warming trend. Some areas did report windy periods.

Because the number of hours spent in the field went up considerably this year compared to the last four years, we used the number of birds seen per field hour rather than raw numbers to determine if there had been a real change. The accompanying chart shows the actual numbers reported.

As usual in every count, some species declined over last year. Wood Duck, Chimney Swift, Killdeer, Fish Crow, Prothonotary Warbler, Common Nighthawk, Field Sparrow, and Grasshopper Sparrow had the smallest numbers since we started reporting the count in 1992. Eastern Meadowlark numbers dropped this year after showing a promising rise last year. Also dropping this year after an increase last year were Common Snipe, American Woodcock, Chipping Sparrow, and Savannah Sparrow. Song Sparrow, White-throated Sparrow, White-crowned Sparrow, and Pine Siskin numbers were also down. After years of steady increases, Canada Goose, Wild Turkey, and Horned Lark numbers are down. Many species will vary erratically in number from year to year and this count is no exception. At a low point are Pileated Woodpecker, Blue Jay, Ruby-crowned Kinglet, White-eyed Vireo, Yellow-throated Warbler, Swainson's Warbler, Yellow-rumped Warbler, and American Goldfinch. Cape May Warblers continue their steady decline.

We had a number of species that showed up in record numbers: Great Blue Heron, Red-shouldered Hawk, Sharp-shinned Hawk, Cooper's Hawk, Bank Swallow, Northern Raven, Blue-headed Vireo, Rose-breasted Grosbeak, Dark-eyed Junco, and Bobolink. A number of warbler species were also at high numbers: Blue-winged, Chestnut-sided, Magnolia, Bay-breasted, Blackpoll, and Canada. The Bald Eagle continues to increase, with 25 reported. Rough-winged, Barn and Cliff Swallows are up over last year. Big increases were shown by Swainson's Thrush, Worm-eating Warbler, Purple Finch, and Orchard Oriole. Northern Parula, Yellow Warbler, Black-throated Blue Warbler, American Redstart, Kentucky Warbler, and Swamp Sparrow are also

up. After several years of apparent decline, Eastern Wood-Peewee and Acadian Flycatcher showed an increase in numbers.

Compilers' Comments

CHNC-Chapel Hill, NC Center Franklin and Columbia Streets, Chapel Hill. May 2, 0500-1930 h. Temperature range 45-70°F. No precipitation, wind 10-15 mph northeast with partly cloudy skies.

Participants: Compiler: Will Cook, 418 Sharon Rd., Chapel Hill, NC 27514: Dick and Pat Ballard, Anne Beckwith, Norm Budnitz, Sandy Cash, Bob Chase, Ramona Conyers, Anson Cooke, Dwayne Cooke, Tom Driscoll, Beth Duncan. Paul Ferster, Kent Fiala, Cynthia Fox, John Frederick, Maury and Marie Graves, Perry Haaland, Ken Harden, Ruth Harris, Walton Haywood, Pat and Pete Hobson, Fran Hommersand, Alan Johnson, Eleanor and Fred Kilgour, Ken Knapp, Roger Kohn, Judy Murray, Monica Nees, Oliver Orr, Franchesca Perez, Mangus Persmark, Jeff Pippin, Kevin Powell, Jay Rabb, Russell and Ruth Roberson, Terry Roberts, Kathy Roggenkamp, Barbara Roth, Mike and Lois Schultz, Doug Shadwick, Jonathan Steere, Elvin Strowd, Pam Timmons, Les Todd, Joanna Vondrasek, Haven Wiley, Bobbie Wilkerson.

Overall this was an average count, both in number of species and number of individuals. The cool, windy weather hindered birding by ear, but we still managed to find plenty of warblers. The best bird was our first record of the Tricolored Heron. Other goodies were our second "Brewster's" Warbler, Common Snipe, Sedge Wren, and Gray-cheeked Thrush. We set or tied record high counts for Great Blue Herons, Brown Thrasher, Turkey Vulture, Cooper's Hawk and Blue-winged Warbler. Numbers of Canada Goose, Veery, Brown Thrasher, Yellow-rumped Warbler and Pine Warbler were also higher than usual. Unusually scarce this year were Rock Dove, Mourning Dove, owls (probably due to the wind), Chimney Swift, E. Wood-Pewee, Acadian Flycatcher, American Redstart, Yellow-breasted Chat, Summer Tanager, Red-winged Blackbird, Common Grackle, and (everyone's favorite) Brown-headed Cowbird.

DUNC-Durham, NC. Center 1 mile north and 1 mile east of junction of Eno River and U.S. 501. Temperature 39-65°F, no precipitation. Wind calm with clear skies.

Participants: Compiler: Michael Schultz, 5504 Woodberry Rd., Durham, NC 27707; Norm Budnitz, Sandy Cash, Will Cook, Anson Cooke, Catherine Cooke, Tom Driscoll, Ken Knapp, Lois Schultz, Michael Schultz, Doug Shadwick, Benjamin Steere, Jonathan Steere, Carol Williamson, Bruce Young.

GRNC-Greensboro, NC. May 1, 0600-1845 h. Center the intersection of U.S. 220 and Pisgah Church Road. Temperature 45-68°F, no precipitation. Winds strong all day, gusting to 25-30 mph. Sky partly cloudy.

Participants: Compiler: Donald Allen, 2611 David Caldwell Dr., Greensboro, NC; Carolyn Allen, Donald Allen, Louise Brown, Dennis Burnette, Lynn Burnette, Charles Campbell, Chris Carter, Phil Crisp, Judith Durr, Dolores Foutch, Wally Foutch, Larry Gasper, Herbert Hendrickson, Sally

Howell, Barbara Jones, Phillip Kellam, Donna Lazeration, Elizabeth Link, Henry Link, Clarence Mattocks, James Mattocks, Lynn Moseley, Jean Murdick, Elaine Oldham, Sue Scott, Wally Sills, Barbara Smith, Laurie Sorrell, Wilford Sorrell, Emily Talbert, Laura Walker.

The 1999 Spring Count for Greensboro was marked by steady, high winds throughout the day. The thrashing of vegetation and the sound of the wind certainly complicated the finding and identification of birds. Despite this challenge the species total was higher than ordinary. The number of individuals, however, was down from the last several years.

HPNC-Highlands, NC. Center Highlands, NC. May 8, 0700-1700 h. Temperature 45-70°F with no precipitation. Little wind, with the skies overcast most of the day, clearing later.

Participants: Compiler: Cynthia Strain, PO Box 1238, Highlands, NC 28741; Bonnie Barton, Shirley Bohnert, Martha Brenna, Pat Brown, Pat and Charlie Davis, J.J. and Joann Ides, Frances Graves, Walker Harris, Molly Leonard, Marcia Leslie, Marianne McKay, Herman Moll, Verna Montgomery, Mary Osmar, G. Allen Palmer, Pat and John Pittari, Joe and Marilyn Riva, Fritzi E. Seifert, Maryanne Shea, Cynthia Strain, David Wood.

ICNC- Iredell County, NC. Center Chipley Ford Bridge at South Yadkin River. May 2, 0630-1800 h. Temperature 48-71°F with no precipitation. Wind 16-23 mph NE with sunny skies.

Participants: Compiler: Sam Cathey, 130 Park Street, Statesville, NC 28677; Penny Benbow, Sam Cathey, Cynthia Dickerson, Lois Goforth, Thad Goforth, Lislott Harberts, Lee Hollifield, Richard Holshouser, Larry Marlin, Joel McConnell, Sue McConnell, Susan Miller, Dick Mize, Janice Powell, Allein Stanley, Garnet Underwood, Ron Underwood, Laura Webb.

JLNC-Jordan Lake, NC. Center former crossing of New Hope River and SR 1700, now under water. May 9, 05:00-10:00 h. Temperature 55-80°F with no precipitation. Wind calm to slight breeze over land, and up to 10 mph NE on the water. Sky clear in the morning and about 10% cumulus clouds in the afternoon.

Participants: Compiler: Barbara Roth, 347 Carolina Meadows Villa, Chapel Hill, NC 27514.Co-compiler: Norman Budnitz, 4115 Garret Rd., Durham, NC 27705; Patsy Baily, Barbara Beaman, Eve Becker, Kyle Blankenship, Barbara Brooks, Norman Budnitz, Chuck Byrd, Robert Chase, Barbara Coffman, Bobbie Collins-Perry, Will Cook, Anson Cooke, Jefferson Dalby, Emily DeVoto, Shelia Donn, Tom Driscoll, Beth Duncan, Cynthia Fox, Martha Girolami, Bryan Goldston, Maurice Graves, Perry Haaland, Stephan Hall, Rachel Harden, Russell Herman, Loren Hintz, Michael Hosey, Sam Kalat, John Kent, Eleanor Kilgour, Frederick Kilgour, Betty King, Kenneth Knapp, Roger Kohn, Janet Krakauer, Tom Krakauer, Jane Lewis, Barbara Logue, Terry Logue, Phil Manning, Melinda Meade, Jill Midgett, Lynn Milich, Kyle Mills, Michael Mills Sr., Judy Murray, Rick Payne, Francesca Perez, Kevin Powell, Barbara Roth, Mark Schultz, Douglas Shadwick, Jennifer Shoemaker, Ginger Travis, Andy Upshaw, Margaret Vimmerstedt, Chris Weigle, Bruce Young.

Compiler's Comments: We had a successful count this year, with 58 observers in 21 parties who counted for about 150 hours. Our species total was 131, an average number, as was the total number of individual birds, 8484. Our record species total was 146, in 1992, when we experienced more shorebirds, gulls, terns and warblers. That year we had 29 species of warblers; this year we had only 24 species.

Among our more unusual species were three Little Blue Herons, seen during previous spring counts only in 1978, 1984,1987, and 1996. These were observed by two parties, with two herons being in calico plumage. Also found were 6 Great Egrets, not found since 1991. One Snowy Egret was also located, previously seen only in 1978 and 1984.

A scaup species was located on the lake. Lesser Scaup had been seen before the lake was there, but seldom since. One odd occurrence was the appearance of a Common Merganser, which has been seen in all the odd years since 1991 in the same area of the lake. We cannot determine if this is the same male bird.

One Northern Harrier was found, the first since 1992. A number were seen before that but they are rapidly losing their habitat.

Among shorebirds, two Semipalmated Sandpipers were counted, not seen since 1992. The only other sandpipers were the Spotted and the Solitary.

Notable were the numbers of cavity-nesting birds in which we had highs. The Red-headed Woodpeckers were surprising in that they were not located at the usual sites, some of which were barren. This merits further study, to question the observers as to exactly where these sites were and how the habitats might be changing.

The chickadees and titmice have been increasing quite steadily over the years And this is not due to more feeders, as other people have found in their areas. Here the majority of our count areas are away from populated areas, except for the occasional farm. Instead, many of the abandoned fields around the lake area are growing up into forests,. The number of Pine Warblers illustrates this. We certainly had an excellent Magnolia Warbler fallout - 19 vs. a previous high of 6.

The Bachman's Sparrows have lost their habitat, at least for the time being. Many of the areas clear-cut by Weyerhauser and other companies are fast growing up in young pines. We did not find a single Savannah or Grasshopper Sparrow. Their habitats seem doomed as development constantly takes place. The meadowlarks, however, were hanging on, particularly in the south part of the circle near the Deep River, where there are large, uncut hay fields. That's where the Bobolinks were found.

People have been commenting on the paucity of hummingbirds this spring. This was not reflected in the count, which was average for this species. The Wood Thrush and the tanagers seem to be holding their own in this area to date. Breeding bird censuses would provide more information here since some of the above birds may have been in transit.

This time we had only one area which had not been counted before, the Beaver Creek arm of Jordan Lake. It was covered by a 9-hour kayak workout, with the result that the Great Egrets and one Little Blue Heron were located, as well as other water birds and warblers. There was even a Wild Turkey, for a good count despite a difficult day paddling. In contrast, some parties had to pull

out at the last moment so some areas were not covered. With 58 birders out, though, I think we had good coverage of most of the habitats.

New bedroom communities continue to develop in the northern part of our circle. Industrialization increases in the Cape Fear River basin in the south. I think we will have to expect a gradual change in our bird populations, no matter how valiant our efforts to prevent it.

MJNC-Mount Jefferson, NC. Center as in previous years. May 8, 0610-1100 h. Temperature 52-70°F with no precipitation. Light breeze in the morning becoming gusty in the afternoon, with a clear sky.

Participants: Compiler: Vaughn W. Morrison, 262 Laurel Mountain Estates, Todd, NC 28684; George and Paula Capra, Bill Hofmann, Janet Kelly, Lenore Ketchum, Howard Langridge, Merrill Lynch, John MacConnell, Vaughn Morrison, Les Saucier, Shawn and Connie Wolfe.

NRNC-New River, NC. May 8, 0500-1100 h. Center 36°31'N 81°12'W. Temperature 45-65°F with no precipitation. Wind 0-5 mph NW with skies clear to partly cloudy.

Participants: Compiler: James Coman, 9124 NC Hwy 93, Piney Creek, NC 28663; Harrol Blevins, Jason Blevins, Velma Blevins, James Coman, J.H. Coman, Caroyln Comte, Henrietta Cox, Joyce Dixon, Kathryn Higgins, Jim Keighton, Caroyln Sprinkle, Connie Wolfe, Shawn Wolfe.

RANC-Raleigh, NC. May 8, 0600-14:45. Center Lake Wheeler Road by Farmer's Market. Temperature 65-85°F with no precipitation. Wind intermittent, 5-10 mph. Sky started clear then became partly cloudy.

Participants: Compiler: John Conners, 1227 Mordecai Drive, Raleigh, NC, 27604; J. Angerman-Stewart, S. Balsdon, J. Beardon, K. Beardon, H. Carmichael, W. Cook, K. Draves, K. Fiala, L. Gallitano, B. Hader, H. Hammond, D. Hardy, B. Hasse, E. Hasse, R. Herman, T. Hewitt, A. Hicks, K, Knapp, W. Kimler, M. Marlatt, J. Mulholland, M. Nees, B. O'Brian, M. Pollard, T.L. Quay, W. Rowland, K. Russell, R. Shaw, R. Silverman, C. Smith, R. Van Hoy, S. Wellendorf, B. Wells.

Compiler's Comments: Hurricane Fran heavily affected much of Wake County's woodlands in 1996, and the mix of downed timber, stump sprouts, and natural regeneration of forest has had an impact on wildlife, including birds. Also, Yates Millpond and Lake Raleigh remain drained as a consequence of storm damage. It is hard to determine how these changes affect bird populations, but the numbers of Brown Thrasher and Eastern Towhees were the highest in years. Northern Parulas, Prothonotary Warblers, and Scarlet Tanagers were down. Hooded Warblers were not reported! Good finds included Cattle Egret, Northern Harrier, Long-billed Dowitcher, Sedge Wren, Nashville and Swainson's Warbler, 3 Canada Warblers, and 140 Bobolinks. An isolated nest of Great Blue Herons was constructed at Greenview Pond in southern Wake (it later fledged three young). The numbers for Field Sparrows and Loggerhead Shrikes remain low. Bobwhite was not reported. There is real concern that these and a few other species will be lost as breeders in Wake County.

RVNC-Raven Rock State Park, NC. Center Intersection of NC 210 and SR 1434. May 8, 0600-1205 h. Temperature 64-83°F with no precipitation. Wind 0-23 mph W with skies mostly clear.

Participants: Compiler: Paul C. Hart, Raven Rock State Park, Lillington, NC 27545; Jim Bateson, David Brown, Molly Fullwood, Paul Hart, Scott Hartley, Tom Howard, Bobby Lufty, Mitch Reece, Larry Rose, Mary Stevens, Sarah Stevens, Erik Thomas.

Compiler's Comments: The count was held a little later than normal this year. The 111 species counted, however, was just above the 10-year average of 110. Good finds included an immature Bald Eagle being chased by an Osprey (Mitch Reece), Swainson's Warblers (David Brown, Bobby Lufty), a late Northern Harrier (Erik Thomas), and a new apparent breeding site for Cliff Swallows (Mary Stevens, Molly Fullwood). Holding the count a little later accounts for the larger than normal total of Blackpoll Warblers (10). Misses included American Woodcock, Wild Turkey, and Yellow Warbler (two years in a row).

SMNC-Stone Mountain, NC. May 8, 0600-1700 h. Temperature 60-82°F with no precipitation. Wind 5-10 mph with skies clear to partly skies.

Participants: Compiler: John G. McConnell, 2819 Silas Creek Road, Lansing, NC 28643-9006; Jim Billings, Greg P. Church, Meg Short (and 5 others unnamed).

SPNC-Southern Pines, NC. Center same as last year near Skyline, NC. May 2, 0430-2100 h. Temperature 48-64°F with no precipitation. Wind 10 mph N with gusts to 16mph, the NNE 15 mph with gusts to 21. Sky was partly cloudy.

Participants: Compiler: Susan Campbell, 144 Pine Ridge Dr., Whispering Pines, NC 28327; Jackie Britcher, Kerry Brust, Dick Burk, Marion Burk, Susan Campbell, J.H. Carter, Dick Dole, Lois Dole, Elizabeth Evans, Charlotte Gantz, Barbara Gearhart, Scott Hartley, Dean Holzgraft, Wayne Irvin, Tom Howard, Marion Jones, Al McDonald, Dan Pieroni, Robert Perkins, George Rainoff, Alan Schultz, Megan Schultz, Mary Stephenson, Libba Watson.

WSNC-Winston Salem, NC. Center intersection of Silas Creek Parkway and Business I-40 in Winston-Salem. Temperature 60-74°F with no precipitation. Wind mild and skies party cloudy.

Participants: Compiler: David Disher, 4145 Chatham Hill Drive, Winston-Salem, NC 27104; Kay Bergey, Pam Burke, Regina Burt, Zack Bynum, John Carter, Lee Carter, Peg Cochrane, Ferenc Damoki, Linda Davis, Doug Deneve, David Disher, Susan Disher, Cynthia Donaldson. Gardner Gidley, Margaret Gidley, Billy J. Hammond, Susan Hammond, Bert Hollifield, Hop Hopkins, Royce Hough, Lois Jones, Nancy Jordan, Pete Jordan, Ray Kandt, Anna Kapitov, Barbara Kendrick, Leon Kendrick, Peggy Kinlaw, Annette Lance, Jim Martin, Mary Ellen Martin, Jim May, Sue Moore, Tom Mowbray, Ed Mulvey, Margaret Mulvey, Mary Jo Murphy, Ann Pollard, Ed Poole, Kay Poole, Paul Powers, Susan Pullen, Lloyd Ramsey, Ann Robertson, Chester Robertson, Liz Schmid, Tom Schmid, Jackie Shelton, David Shuford, Ramona Snavely, Paul

Spain, Jim Spencer, Bill Sugg, Jay Wilhelmi, Camilla Willcox, Ann Williams, Bob Witherington.

Compiler's Comments: The weather was perfect. The large numbers of Blackpoll Warblers indicated that the end of migration was near. The 66 Double-crested Cormorants were a new high for the count. A count first was seen during count period. A Wild Turkey was seen walking down the street of a residential area. This bird may be the result of efforts to re-establish populations in neighboring counties.

CASC-Charleston, SC. Center same as Christmas Count. April 25, 1200-2400. 60-70°F with rain in the morning and scattered mist in the afternoon. Wind NE 20-35 mph with gust to 35+. Sky overcast and cloudy.

Participants: Compiler: Edwin Blitch, III, 96 Wyecreek Ave., Charleston, SC. 29412-2525;Edwin L. Blitch, Edwin L. Blitch III, Edwin Blitch IV, Bob Chinn, Calvin Clyde, Allen Crane, Doreen Cubie, Hal Currie, Dennis Forsythe, Donna Forsythe, Andrew Harrison, Julian Harrison, Drew Heffron, Paul Hinchcliff, Herbert MacMurphy, David C. McLean, David C. McLean Jr., Perry Nugent, Gloria Pennell, Cecelia Post, Kathleen Post, Will Post, Tonya Spires.

CGSC-Congaree Swamp, SC. May 8, 0600-1100. Temperature 60-82°F with no precipitation. Wind variable N to W 5-12 mph. Sky partly cloudy to clear.

Participants: Compiler: Robin Carter, 4165 E. Buchanan Dr., Columbia, SC 29206; Robin Carter, Dennis Forsythe, Donna Forsythe, Heidi Hoerman, Jack Stewart, Lula Stewart.

SPSC-Spartanburg, SC. Center at Spartanburg Airport. May 8, 0530-2230 h. 63-77°F with no precipitation. Wind 7-16 mph, partly cloudy.

Participants: Compiler: Lyle Campbell, 126 Greengate Lane, Spartanburg, SC 29307; John Allen, Robbie Allen, Barney Altman, Frankie Altman, John Barry, Susan Barry, Beth Bartel, Tim Brown, David Campbell, Lyle Campbell, Matthew Campbell, Sarah Campbell, Alan Chalmers, Edith Clark, Marion Clark, Matthew Coleman, Vince Conners, Pat Fowler, Roy Fowler, Teresa Glen, Conway Henderson, J. B. Hines, Myra Hines Joel Jones, Micky Marotte, Jim Miller, Margaret Miller, Susan Monk, Bell Moody, Nora Moore, Mary Anne Myers, Gill Newberry, Ken Pearson, Lisa Pearson, Bob Powell, Doug Raynor, Crystal Schirmer, Walton Scott, Jenny Scott, Mac Shealey, Tina Taylor.

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Common Loon			*	1		1						2					4
Pied-billed Grebe														11			11
Northern Gannet														3			3
Brown Pelian														110			110
Dbl.-cr. Cormorant	156	342	56			157			2	15		24	66	172	1	8	999
Anhinga														2	1		3
Least Bittern														2			2
Great Blue Heron	23	90	10	4	11	36	2	4	25	13		11	7	19	13	16	284
Great Egret		4				6		1	1					93	1		106
Snowy Egret						1								90			91
Little Blue Heron						3								18			21
Tricolored Heron	1	1												40			42
Cattle Egret		1							1					4	7		13
Green Heron	11	1	9		12	16		2	5	7		10	8	26	2	*	109
Black-cr. Nt.-Heron														2			2
Yel.-cr. Nt.-heron													2		11		13
White Ibis														37			37
Glossy Ibis														2			2
Wood Stork														1			1
Mute Swan									1			1					2
Canada Goose	227	84	449	9	52	53	4	33	213	87	2	116	204	11	5	54	1603
Wood Duck	35	42	13	4	8	51		5	20	17		27	20	14	5	15	276
Green-winged Teal				1													1
Am. Black Duck			2											1		4	7
Mallard	64	37	211	31	10	50		2	77	21		58	78	33		99	771
Mottled Duck														2	2		4
Northern Pintail			2														2
Blue-winged Teal		10										1		73			84
Ring-necked Duck												4					4
Lesser Scaup			1									16		9			26
Scaup (sp.)						1											1
Black Scoter														22			22
Hooded Merganser														1			1

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Com. Merganser						1											1
Red-br. Merganser			5					1						11			17
Ruddy Duck																	0
Black Vulture	26	26	*	1	5	26	1	10			12		10	43	10	9	179
Turkey Vulture	131	40	35	12	37	93	25	98	16	21	22	26	37	155	25	34	807
Osprey	5	9	5	2	3	19	1	*	2	2		2		46	1	1	98
Swallow-tailed Kite														1			1
Mississippi Kite														3	18		21
Bald Eagle	11	3	1			6				1		1		2			25
Northern Harrier						1			1	1				1			4
Sharp-shin. Hawk	4		4	1	2	1	2	2	1		1	2	2	2			24
Cooper's Hawk	5	1	2		1	4	2	5	5			1	3			2	31
Acciper sp.	1									1		1					3
R.-shoulder. Hawk	26	15	5		6	32			15	7		9	11	3	6	14	149
Brd.-winged Hawk	2	3	4	4	3	4	*	4		3	3	4	2			2	38
Red-tailed Hawk	34	19	27	3	11	24	8	11	18	18	1	21	25	17	6	13	256
Buteo sp.						1											1
Amerian Kestrel	1		4		2		1	5	1		2	2	3	5		1	27
Merlin			1		2									1			4
Peregrine Falcon														1			1
Ruffed Grouse				1			1	4			1						7
Wild Turkey		3		2	4	2	3	54			9		*	4		3	84
Northern Bobwhite	5	2	1	1	13	21		2		25		5	12	13	6	10	116
Black Rail																	0
Clapper Rail														61			61
King Rail														5			5
Virginia Rail									1								1
Sora														1			1
Common Moorhen														32			32
American Coot			3		1	2						4		45			55
Black-bld. Plover														157			157
Semipalm. Plover													1	50			51
Killdeer	30	27	25		26	49		14	17	39		17	24	18	3	16	305

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Am. Oystercatcher														36			36
Greater Yellowlegs								1		4				98		1	104
Lesser Yellowlegs					2					5		1	5	22		1	36
Solitary Sandpiper	10	3	12		15	8		2	10	6		7	22	2		9	106
Willet														75			75
Spotted Sandpiper	16	4	15	3	20	32		13	31	23		26	30	20		11	244
Whimbrel														357			357
Marbled Godwit														1			1
Ruddy Turnstone														78			78
Red Knot														150			150
Sanderling												1		6			7
Semipal. Sandpiper						2			1				1	30		3	37
Western Sandpiper								2	1					12			15
Least Sandpiper									15	9		27	30	7		1	89
Baird's Sandpiper														*			0
Dunlin														102			102
Sh.-bill. Dowitcher														770			770
L.-billed Dowitcher									1								1
Common Snipe	1		2													2	5
Am. Woodcock		1	1		1												3
Laughing Gull														804			804
Bonaparte's Gull			2			7								8			17
Ring-billed Gull	8	134	128			126			16			2	1	92			507
Herring Gull			2											21			23
Gull-billed Tern														10			10
Caspian Tern			2			1						3		15			21
Royal Tern														39			39
Sandwich Tern														11			11
Common Tern														4			4
Forster's Tern			2											70			72
Least Tern														46			46
Black Skimmer														309			309
Rock Dove	22	28	47		7	36		24	457	66		81	72	15	6	24	885

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Mourning Dove	177	74	158	23	106	190	31	61	357	200	15	163	165	147	56	89	2012
Eur. Collared-Dove															1		1
Com. Ground-Dove														4			4
Yel.-billed Cuckoo	7	1	1	1	3	61		3	1	7		1	3	5	40	*	134
East. Screech-Owl			1	1		1	1	3		5		1	1	6	1	2	23
Great Horned Owl		2		1		4	3			1		1	5	1		1	19
Barred Owl	2	7	2	2	3	14	*		3	2			2	5	8	2	52
Com. Nighthawk					2			1	1				4			1	9
Chuck-will's-widow					1	6			3	7		8	4	55	5	23	112
Whip-poor-will	7				1	36			1	10		9	3	17	4	10	98
Chimney Swift	104	45	219	4	51	144	8	37	149	189	6	238	141	23	33	88	1479
Ruby-thr. Hummer	26	13	6	29	8	20	14	34	14	14		9	11	2	6	5	211
Belted Kingfisher	10	6	13	3	6	8	2	5	15	7	1	11	10	14	1	4	116
Red-head. Woodp.	7	6	*	1	1	25		3	7	3		8	1	45	15	2	124
Red-bel. Woodp.	127	54	48		29	160	5	15	98	48		52	54	77	32	31	830
Yel.-bel. Sapsucker	1			1												*	2
Downy Woodpecker	40	18	18	2	7	53	6	15	26	14		17	18	8	4	7	253
Hairy Woodpecker	14	4	5	1	2	9	1	4	6	4		5	4	2		6	67
Red-ckd Woodp.												17		11			28
Northern Flicker	27	12	23	3	18	20	2	5	19	9		20	21	14		4	197
Pileated Woodp.	11	3	2	10	4	20	6	22	4	9	3	6	1	16	9	2	128
E. Wood-Pewee	7	1	2	8		54	3	20	11	40	2	11	13	4	18	10	204
Acadian Flycatch.	17	10	4	3		22	2	9	31	32	2	8	1	12	22	*	175
Willow Flycatcher													2				2
Least Flycatcher				2			2	1									5
Eastern Phoebe	39	11	21	29	21	45	23	43	18	30	3	15	32			32	362
Gt. Cr. Flycatcher	36	23	19	2	12	105	3	8	23	74	1	59	24	456	68	3	916
Eastern Kingbird	51	24	33		34	100	*	42	61	64		67	35	23	54	53	641
Horned Lark			3		9							4			2	*	18
Purple Martin	28	40	51		292	47		2	38	22	3	94	78	82	89	42	908
Tree Swallow	32	29	203	5		24	1	53	1			111	3	235		4	701
Rough-w. Swallow	45	10	102	11	9	19	11	43	22	21		90	32	32	13	5	465
Bank Swallow	5	1	2			1						77					86

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Cliff Swallow	3	12	1			125				6			40			6	193
Barn Swallow	108	60	495	20	57	240	9	89	90	200		418	61	453	22	43	2365
Blue Jay	137	88	140	16	47	174	15	53	121	86	11	91	174	68	43	61	1325
American Crow	287	70	237	38	121	267	56	131	195	137	33	193	139	91	61	98	2154
Fish Crow	24	12	6			21			34	14		46	2	40	12		211
Common Raven			*	2			1	22					6				31
Bl.-cap. Chickadee				1													1
Carol. Chickadee	282	121	152	51	27	202	29	61	119	76	4	76	55	61	8	37	1361
Tufted Titmouse	253	143	128	41	29	276	26	55	131	75	2	91	103	92	49	36	1530
Red-br. Nuthatch				11													11
W.-br. Nuthatch	21	14	13	18	4	12	2	23	14	1		15	16	1		6	160
Br.-he. Nuthatch	36	16	14		7	56			18	9		44	17	51	5	7	280
Brown Creeper				5													5
Carolina Wren	355	123	82	22	19	276	12	39	206	98	2	81	70	102	73	39	1599
House Wren	32	9	8	2	10	5	7	26	8	3		3	17			1	131
Winter Wren				1			1	1									3
Sedge Wren	1								1					3			5
Marsh Wren														8			8
Golden-cr. Kinglet				3													3
Ruby-cr. Kinglet	15	26	10	1	2	4	1	1				11	1	1		1	74
B-g. Gnatcatcher	229	172	44	5	19	263	4	107	125	98	4	67	56	87	32	16	1328
Eastern Bluebird	234	43	139	12	105	200	16	73	64	156	13	158	65	59	24	67	1428
Veery	9	1	5	3	2	2	3		5			2	12	1	1	1	47
Gray-cheek. Thrush	1																1
Swainson's Thrush	5	1	16		2	8	1		3	1			24		1		62
Hermit Thrush	1	2	3		1							2	1	1			11
Wood Thrush	60	32	37	20	5	97	16	13	36	46	3	41	44	5	21	7	483
American Robin	258	100	675	54	182	90	28	71	328	189	14	155	525	6	21	115	2811
Gray Catbird	57	28	24	30	13	27	22	17	25	23		46	49	8	3	8	380
N. Mockingbird	198	59	138		96	108	*	13	85	127	5	77	61	114	52	92	1225
Brown Thrasher	75	23	39	10	20	52	5	25	35	40	1	44	46	22	11	56	504
American Pipit					6												6
Cedar Waxwing	225	89	122	7	88	209		20	56	63		91	304	15		51	1340

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Loggerhead Shrike					5				1	9		6		5	8		34
Eur. Starling	338	150	530	12	168	146	26	86	267	282	33	134	280	97	29	129	2707
White-eyed Vireo	38	27	2	4	2	28	2	12	19	18	1	27	16	68	40	*	304
Blue-headed Vireo	1	2	3	47	1	4	14	5		1		3	5	2			88
Yellow-thr. Vireo	5	10	1			16	5	35	9	14		8			5	4	112
Warbling Vireo							1	11									12
Red-eyed Vireo	209	186	100	62	20	346	20	67	130	91	23	45	105	67	26	11	1508
Brewster's Warbler	1																1
Blue-winged Warb.	12	2	3		3				1			2					23
Golden-wi. Warb.			2	1			4										7
Tennessee Warbler							2										2
Nashville Warbler									1					1			2
Northern Parula	65	47	21	25	7	100	*	39	32	46	4	22	19	45	32	1	505
Yellow Warbler	11	6	6	2	8	13	6	44	4			7	19		3	2	131
Chest.-sided Warb.	6	1	5	43	2	3	47	4	*			3	17				131
Magnolia Warbler	1			1		19	4	2	1				15			*	43
Cape May Warbler			1						*				4		1		6
B.-thr. Blue Warb.	50	10	39	42	3	26	18	16	24	10	2	23	33		10	1	307
Y.-rumped Warb.	351	325	227	16	38	38	10	91	30	21		260	87	309		7	1810
B-thd Green Warb.	2	6	15	24	3	2	9	7	2		4	6	3			1	84
Blackburnian Warb.	1		1	2	2				1				6				13
Yellow-thr. Warb.	22	23				99			10	27	2	13	1	27	8	3	235
Pine Warbler	154	78	39	3	7	265		1	69	41		86	27	78	37	2	887
Prarie Warbler	52	24	9		4	59	1	5	4	39		24	11	76		7	315
Palm Warbler	2	10	2		2	1	2	2		1		1					23
Bay-breasted Warb.					1	3		1	*				11				16
Blackpoll Warbler			2	2	3	29		5	13	10		3	63			2	132
Cerulean Warbler			1	1	3						1						6
Blk.-&-white Warb.	34	29	21	43	1	18	12	21	17	15	2	29	14		2	2	260
American Redstart	35	22	26	2	8	59	13	6	30	28	1	10	24		12	3	279
Prothonotary Warb.	14	17	1	1		27			6	14		1	6	25	16	*	128
Worm-eating Warb.	2	7	9	1		6			1			1	3			1	31
Swainson's Warbler									1	2					10		13

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
Ovenbird	70	18	22	25	3	130	24	58	26	41	3	32	3		1		456
N. Waterthrush	6	3	2			1		1		4		1	1	1	4	1	25
La. Waterthrush	11	1	2	1		16	2	1	8	10		5			1	*	58
Waterthrush sp.			2														2
Kentucky Warbler	5	3	1	1		5	6	2	5	4			1	8	4	1	46
Com. Yellowthroat	99	107	22	3	10	99	17	31	55	61		34	28	84	22	17	689
Hooded Warbler	37	9	2	16		31	14	19		19	1	21	3	17	11	*	200
Wilson's Warbler													*				0
Canada Warbler			1	4			4	1	3			1	3				17
Yellow-br. Chat	35	24	18		17	72		6	15	26		15	13	16	17	7	281
Summer Tanager	36	23	7		2	123		1	27	58		22	5	35	21	8	368
Scarlet Tanager	42	8	12	15	10	74	19	24	15	7	5	6	51			6	294
Northern Cardinal	504	202	247	52	101	303	41	62	195	166	7	153	240	253	87	103	2716
Rose-br. Grosbeak	10		11	37	7	7	15	7	9	1		3	18			6	131
Blue Grosbeak	35	7	8	1	14	76		1	11	37		23	15	20	14	15	277
Indigo Bunting	152	40	35	38	57	213	63	134	48	75	16	38	81	8	46	36	1080
Painted Bunting														60	4		64
Eastern Towhee	175	79	60	78	21	112	40	74	91	46		60	64	154	16	12	1082
Bachman's Sparrow												1		5			6
Chipping sparrow	127	29	36	21	51	108	10	41	35	129	3	84	21	1	2	29	727
Field Sparrow	58	35	27	12	30	28	1	45	3	42	8	21	18	2	14	28	372
Savannah Sparrow	6	3	8	2	1			1	7	4		4	3	8		9	56
Grasshopper Spar.	5	1	3		11			4	3	6		1	7			5	46
"Sh-tailed Spar., sp."														1			1
Seaside Sparrow														8			8
Song Sparrow	9	12	61	48	19	6	28	79	4		3	2	66	3		2	342
Lincoln's Sparrow									*								0
Swamp Sparrow	9	23	2			2			2					3			41
White-thr. Sparrow	214	248	71	3	26	16	1	4	3	4	4	42	15	14		*	665
White-cr. Sparrow		14	2		2								*				18
Dark-eyed Junco		1		58	1		33	11					1				105
Bobolink	40		25		9	14			140	180		2	*	1	2002	60	2473
Red-w. Blackbird	72	40	89	2	24	85	20	163	89	58		108	83	398	35	71	1337

Species	CHNC	DUNC	GRNC	HPNC	IRNC	JLNC	MJNC	NRNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	SPSC	Total
E. Meadowlark	39	11	17		74	84	3	34	26	37	2	54	19	3	9	34	446
Rusty Blackbird		1	1		3												5
Boat-tailed Grackle														297			297
Com. Grackle	276	187	609	2	224	302	23	56	283	212		164	372	310	44	76	3140
Br.-head. Cowbird	63	115	38	3	22	102	13	32	38	99	15	59	64	62	13	34	772
Orchard Oriole	16	13	1		2	41		13	18	31		30	10	127	30	2	334
Baltimore Oriole	8		10	1	6	3		39	5				18				90
Purple Finch				10	2											*	12
House Finch	171	22	64	1	35	58	7	16	86	41		67	68	4	7	44	691
Pine Siskin				28													28
Am. Goldfinch	305	105	198	104	74	257	69	157	148	22	2	70	166		2	20	1699
House Sparrow	59	50	38	1	57	38	2	10	49	71	3	29	23	9	22	27	488
No. of Species	127	122	136	107	118	132	89	115	124	111	52	131	127	167	96	108	235
No. of Individs.	8681	4984	7370	1496	2941	8488	1079	3155	5682	4811	326	5233	5481	9982	3716	2356	75781
Total Field Hours	145	54.5	89.5	47	39	150	50	67.5	64.5	59.8	25	98	134	78.25	20	43.8	1165.6
Hours on foot	100	41.5	62.3	35.3	12	113	44	49.5	52.5	34	9.5	52	116	40	8.5	28.8	798.55
Hours by car	38	13	27.3	11.8	27	21.3	6	15	12	25.8	15.5	46	18.3	24	11.5	14	326.3
Hours by boat	7	0	0	0	0	13.5	0	0	0	0	0	0	0	8.25		1	29.75
Hours by bicycle		0	0	0	0	2	0	0	0	0	0	0	0	0			2
Hours by ATV		0	0	0	0	0	0	3	0	0	0		0	6			9
Hours Owling	1.8	1.5	5	0	0	6	0	0.25	1	1.25	0	5	3.5	2.5	1	4	32.8
Total Field miles	419	168	375	163	174	324	95	189	129	327	???	372	226	341.6	165	295	3761.4
Miles on foot	85.5	39	47	13.5	12	74.3	20	44	37	29		33	58.5	29	5	21	547.8
Miles by car	329	12.9	328	149	162	237	75	131	92	298		339	167	276.6	160	272	3027.5
Miles by boat	5	0	0	0	0	9	0	0	0	0		0	0	30		2	46
Miles by bicycle		0	0	0	0	4	0	0	0	0		0	0	0			4
Miles by ATV		0	0	0	0	0	0	14	0	0			0	6			20
Miles Owling	0	0.5	42	0	0	23	0	0	11	4		17	4	22.5	17	29.5	170.5
Date	2-May	25-Apr	1-May	8-May	2-May	9-May	8-May	8-May	9-May	8-May	8-May	2-May	8-May	25-Apr	8-May	8-May	

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Active Nest of the Black-Capped Chickadee from the Great Smoky Mountains: First Report for North Carolina

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On 21 June 1972 J. T. Tanner (field journals; in possession of Mrs. J. T. Tanner) discovered an active nest of the Black-capped Chickadee (*Poecile atricapillus*) in North Carolina on the Noland Divide Trail in the Great Smoky Mountains National Park. The nest site was about 0.8 km from the Newfound Gap Road, 1.6 km from the Tennessee - North Carolina state line. The elevation at the nest site was about 1770 m. The nest site was a 2.3 m tall stub, 23 cm in diameter; the cavity entrance was 0.6 m from the top. Tanner watched both adults carry food to nestlings.

Simpson (1977) stated a nest of the Black-capped Chickadee had yet to be found in North Carolina and that a personal communication from Tanner indicated he had not found a nest in the state. Prior to his death, Tanner (pers. comm.) informed me that he did not consider a single nest record of resident Black-capped Chickadees at a high elevation in the Great Smoky Mountains of North Carolina to be of paramount importance because of his earlier discoveries of nests in Tennessee (Tanner 1952). Tanner (pers. comm.) intended to collect more information on breeding Black-capped Chickadees before publishing another paper.

In the southern Appalachians, morphological and vocalization data of confirmed nesting Black-capped and Carolina (*P. carolinensis*) chickadees must be obtained along an altitudinal transect in habitats at different elevations to assess the distinctiveness of these chickadee taxa (see Robbins *et al.* 1986), which apparently are not sister taxa (A.O.U. 1998:464). The Great Smoky Mountains is the only range in Tennessee and North Carolina where a detailed study has been conducted that satisfies these criteria so that the contact zone (around 915 m) between Black-capped and Carolina chickadees was well defined (Tanner 1952). Tanner did not provide a description of the chickadees

he identified as Black-capped along the Noland Divide Trail, but his expertise on both Black-capped and Carolina chickadees in the southern Appalachian Mountains and the location of the birds and nest far above the contact zone in the Great Smoky Mountains National Park indicate his identification was correct. Consequently, the nest record of Tanner is the first evidence of breeding of Black-capped Chickadees in North Carolina (see Nicholson and McNair 1997 for a summary of nest records in the Great Smoky Mountains of Tennessee).

Acknowledgments

I thank Mrs. J. T. Tanner for sending me copies of relevant field notes from the journals of J. T. Tanner and for graciously answering my queries. I also thank H. E. LeGrand, Jr., C. P. Nicholson, M. B. Robbins, and M. H. Tove for comments on the manuscript.

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Carolina Bird Club Web Site
www.carolinabirdclub.org

First Record of Groove-billed Ani for North Carolina

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On 14 October 1996, Howe was birding at the Hoop Hole Creek area at the western end of Atlantic Beach, Carteret County, N.C. He heard a very loud, unfamiliar two-syllable call (the second syllable with an "O" sound) coming from an evergreen thicket. After calling several times, the bird flew across an opening and landed in the top of a small tree 15 to 20 yards away. It changed perches several times but remained in the tops of the small trees. The size of the bird was approximately that of a Boat-tailed Grackle (*Quiscalus major*) but appeared a bit chunkier. It was a solid black color, but it had a scalloped look on the back. The head and nape feathers "bristled" while the bird was calling. The eyes were dark, as opposed to the yellow eyes of a grackle. The bill was massive, but it did not have a hump or raised area at the base, which is characteristic of the Smooth-billed Ani (*Crotophaga ani*). Lines on the bill were visible, a definitive mark separating the Groove-billed Ani (*C. sulcirostris*) from the Smooth-billed Ani. The tail feathers were extremely long and thick, and these feathers were opened (fanned) in flight. The tail had a graduated shape, with the outer rectrices being half as long as the central ones. These feathers were pumped or drawn under the body when the bird called. The rounded wings appeared short for the body size.

Howe observed the bird with 7x binoculars for approximately 20 minutes. He was alone and did not have a camera to photograph the bird. The weather was clear, with temperatures in the mid- to upper-60's. The habitat was scrubby evergreen woodland/thicket adjacent to a tidal creek on Bogue Banks. Howe had seen both species of anis, having seen Groove-billed in Texas earlier in the year.

The species nests in southern Texas, but it winters sparingly eastward along the Gulf Coast. It is perhaps overdue to have been found in North Carolina, as a number of states in the East have records for the species, as summarized by Mlodinow and Karlson (1999). Both Virginia and South Carolina have previous records. Virginia's two records are from the mountains (Tazewell and Rockingham counties) (Kain 1987), whereas South Carolina's record is from the southern coast (Young 1983). Interestingly, all four Groove-billed Anis from Virginia and the Carolinas were first detected between 14 and 27 October.

This is the first report of Groove-billed Ani for North Carolina. The report was accepted by the North Carolina Bird Records Committee (1998) and was placed on the Provisional List, as no tangible documentation is available for the species.

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CAROLINABIRDS

Carolinabirds is an Internet e-mail discussion group about birds and birding in the Carolinas. Subscribers frequently post sightings to it similar to those found in Briefs for the Files, but unusual behavior receives more attention. Subscriptions are free. To subscribe, address an e-mail message to <majordomo@duke.edu>. Don't fill in the subject line. As your message, simply put, "subscribe carolinabirds" (without the quotes). You will receive a confirmation and more information shortly. Submissions for Briefs for the Files should be sent directly to Ricky Davis.

BRIEFS FOR THE FILES

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All Dates Fall 1999

Briefs for the Files is a seasonal collection of uncommon-to-rare or unusual North and South Carolina bird sightings and events which do not necessarily require a more detailed Field Note or article. Reports of your sightings are due the 20th of the month after the end of the previous season.

Winter:	December 1 - February 28, due March 20
Spring:	March 1 - May 31, due June 20
Summer:	June 1 - July 31, due August 20
Fall:	August 1 - November 30, due December 20

Reports can be submitted in any format, but I prefer that you type them and list the sightings according to the birds in checklist order (not according to dates or locations). If you submit your report to me through e-mail, please type your report directly into the message or copy it from a word processing program directly into the message. You may also attach your file to the e-mail, but if you do, please let me know the program used and also send a second version saved as a text (.txt) file.

Suitable reports for the Briefs include any sightings you feel are unusual, rare, noteworthy, or just plain interesting to you in any way! It is my responsibility to decide which reports merit inclusion in the Briefs.

Please be sure to include details of any rare or hard-to-identify birds.

I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me as described above.

If I feel that your sighting warrants a field note, I will contact either you or the appropriate state Field Notes editor. You may, of course, submit your Field Note directly to the editor without going through me.

COMMON LOON: One was early at L. Monticello, SC, Sept. 18, as noted by Donna Bailey and Bob Ellis. The highest inland count reported was 200 + on L. Norman, NC, Nov. 7 (Tom Lorenzin).

RED-NECKED GREBE: The only one reported was at L. Mattamuskeet, NC, Nov. 14 (Haven Wiley *et al.*), a rare occurrence for that locality.

EARED GREBE: The peak counts noted were seven at the Savannah Spoil Site, SC, Oct. 13 (Steve Calver) and six at the Goldsboro, NC, Wastewater Treatment Plant during the fall (Eric Dean). Other Eareds included three at L. Paul Wallace, Bennettsville, SC, Oct. 18 (Barbara Gearhart), up to two at the Hemingway, SC, Sewage Lagoons Oct. 24-27 (Mike Turner; Lex Glover and

David Dobson), one at the C. Hatteras point salt pond Nov. 5 (Taylor Piephoff *et al.*), and one on New Field, Pea Island N.W.R., NC, Nov. 5-7 (Simon Thompson *et al.*; m. obs.).

WESTERN GREBE: One was found at L. Paul Wallace, Bennettsville, SC, Aug. 13 (Barbara Gearhart) and was subsequently seen by many observers during its stay, which was at least until October 22. This species is extremely rare anywhere in the Carolinas, and this bird provided about the 4th record for South Carolina.

HERALD PETREL: This species has become expected each year now, with this fall's birds including one off Wilmington, NC, Aug. 3 (Wayne Irvin) and one off Oregon Inlet, NC, Aug. 7 (Paul Guris *et al.*).

FEA'S PETREL: Only one was found this fall, off Hatteras, NC, Aug. 8 (Brian Patteson *et al.*).

BERMUDA PETREL: North Carolina's 5th or so Bermuda Petrel was discovered off Hatteras Aug. 14 (Patteson *et al.*). One wonders if this endangered species is really beginning to increase its numbers or whether the recent string of sightings is due to more observer effort.

BLACK-CAPPED PETREL: The peak offshore count was 241 off Oregon Inlet, NC, Aug. 16 (Patteson *et al.*). Hurricane Dennis brought some to the coast, where one was on Roanoke Sound Aug. 31 (Jeff Lewis) and one was at Ocracoke Sept. 4 (Elizabeth Hanrahan).

CORY'S SHEARWATER: A record one-day offshore total was the 6,219 counted off Hatteras, NC, Aug. 7 (Patteson *et al.*). Storm-related beachings included 196 found on Ocracoke, NC, Sept. 9 following Hurricane Dennis (Marcia Lyons). Also one was seen inland on the Neuse River, New Bern, NC, Sept. 16 following Hurricane Floyd (Wade Fuller).

SOOTY SHEARWATER: This species is quite rare and unexpected during the fall season. Thus of note were two off Hatteras, NC, Aug. 7 (Patteson *et al.*), one off Oregon Inlet, NC, Aug. 8 (Guris *et al.*), and one from Roanoke Island, NC, Aug. 31 during Hurricane Dennis (Jeff Lewis).

AUDUBON'S SHEARWATER: At least 81 were found dead on Ocracoke, NC, beaches following Hurricane Dennis Sept. 9, as noted by Marcia Lyons.

WILSON'S STORM-PETREL: Hurricane Dennis brought in small numbers along North Carolina's coast, with the best count being 25 in Roanoke Sound Aug. 31 (Keith Watson and Jeff Lewis). One was also inland at New Bern, NC, following Hurricane Floyd Sept. 16 (Wade Fuller).

WHITE-FACED STORM-PETREL: The always exciting White-faced Storm-Petrel was found several times this fall. Three were off Wilmington, NC, during a cruise Aug. 1-8 (Wayne Irvin), one was off Oregon Inlet, NC, Aug. 7 (Guris *et al.*), and one was off Oregon Inlet, NC, Aug. 29 (Patteson *et al.*).

BAND-RUMPED STORM-PETREL: The peak count noted this fall was an excellent one-day total of 150 off Oregon Inlet, NC, Aug. 16 (Patteson *et al.*).

WHITE-TAILED TROPICBIRD: Reports of this much-sought-after species were down somewhat this fall. The only sightings were one off Hatteras, NC, Aug. 8 and Oregon Inlet, NC, Aug. 16 (Patteson *et al.*); and one was found dead at Ocracoke, NC, Sept. 9 following Hurricane Dennis (Marcia Lyons).

NORTHERN GANNET: One was quite early and unusual on Roanoke Sound, NC, Aug. 31 (Jeff Lewis), no doubt affected by Hurricane Dennis.

AMERICAN WHITE PELICAN: Impressive numbers of this species were found in South Carolina's ACE Basin this fall. On August 30, Stephen Harris counted four at Bear Island W.M.A. and 27 at Donnelly W.M.A. And a count of 20 was had at Bear Island as late as Oct. 28, as noted by Lex Glover and Tom Murphy. In North Carolina, the only report was of one in Roanoke Sound Sept. 6 (Jeff Lewis).

ANHINGA: Some notable inland fall sightings included one at Tarboro, NC, Aug. 7 (John & Paula Wright), two at L. Paul Wallace, Bennettsville, SC, Aug. 20-29 (Dick Burk), one at Pee Dee N.W.R., NC, Aug. 21 (Dick Burk), and one at Goldsboro, NC, Sept. 11 (Eric Dean).

MAGNIFICENT FRIGATEBIRD: The only report was of one hanging around Paris Island, SC, Sept. 24-27 (Bob Chinn, *fide* Van Atkins). This is most unusual in that this species normally does not stay in one area for more than a day in the Carolinas.

LEAST BITTERN: An excellent count of this elusive species was the 18 at C. Romain N.W.R., SC, Aug. 27 (Paul Sykes). Also one was quite late at Huntington Beach State Park, SC, Nov. 16 (Jack Peachey and Paul Rogers).

REDDISH EGRET: This species continues to be found regularly in the Carolinas. The best counts this fall included five (4 dark and 1 white morph) at C. Romain N.W.R., SC, Aug. 27 (Paul Sykes), two at Sunset Beach, NC, Aug. 21 (Dan Kaplan), and two on Harbor Island, SC, Oct. 9 (George & Judy Halleron). Also one again lingered into the winter at Huntington Beach State Park, SC, as noted by Jack Peachey, Gary Phillips, Dennis Forsythe, sev. obs.

BLACK-CROWNED NIGHT-HERON: Locally uncommon were six at Jordan Lake, NC, Sept. 12 (Ginger Travis and Judy Murray).

WHITE IBIS: The best inland total reported was the 30 at Granby Park, Richland County, SC, Oct. 5 (Robin Carter).

ROSEATE SPOONBILL: Very rare in the Carolinas, one was present at Hilton Head Island, SC, from Sept. 28 (Nan Lloyd) until at least Oct. 23 (Dan Connelly).

GREATER WHITE-FRONTED GOOSE: The only one reported this fall was observed in flight with a flock of Tundra Swans over Alligator River N.W.R., NC, Nov. 16 (Ricky Davis).

EURASIAN WIGEON: As usual, the only Eurasian Wigeons found were one to two males at North Pond, Pea Island N.W.R., NC, from early November on into winter (m. obs.).

COMMON EIDER: At Huntington Beach State Park, SC, an imm. male Common was noted Oct. 8 to be sick, and by the 13th was carried to a local wildlife shelter, where it died (Jack Peachey). It is quite possible that this bird never went north during the spring since early October is rather early for a southward-moving eider.

SURF SCOTER: Inland Surf Scoter reports were dominated by the amazing total of 14 different individuals at L. Hickory, NC, during the period Oct. 25 - Nov. 30 (Dwayne & Lori Martin).

BLACK SCOTER: Noteworthy Black Scoter reports included a male inland on Lookout Shoals Lake, NC, Nov. 13 (Dwayne & Lori Martin) and two quite early at Huntington Beach State Park, SC, Sept. 5 (Jack Peachey and Gary Phillips).

WHITE-WINGED SCOTER: Very unusual was the flock of 10 White-wingeds slightly inland at the Hemingway, SC, Sewage Lagoons Oct. 24 (Mike Turner). One was still present there Oct. 27 (Lex Glover and David Dobson).
HOODED MERGANSER: A female found at Beaver Lake, Asheville, NC, Aug. 7 (Tim Lewis *et al.*) was quite possibly a local breeder.
SWALLOW-TAILED KITE: Rare and out-of-range Swallow-taileds included one over Laurinburg, NC, Aug. 1 (Barbara Gearhart) and one at Fountain Inn, Greenville County, SC, Aug. 26 (Paul Shewmaker, Pete Worthington). The farthest north was one near Boomer, Wilkes County, NC, Aug. 23 (Bill Reavis).
MISSISSIPPI KITE: One was locally unusual at L. Hartwell, Pickens County, SC, Aug. 15, as noted by Mike Turner.
SHARP-SHINNED HAWK: Breeding evidence of this species is always noteworthy. This fall, a pair successfully fledged one young in southeastern Forsyth County, NC, Aug. 22 (*fide* Ramona Snavely).
BROAD-WINGED HAWK: Some peak migration totals reported included 4,365 during the first week of October at Clemson, SC (Andrew Farnsworth), 1,811 at Caesar's Head, SC, Sept. 23 (Jeff Catlin), 1,572 at Pilot Mt. state Park, NC, (Toby Gordon), 1,209 at Mahogany Rock, NC, Sept. 22 (Jim Keighton), and 724 at Mt. Pisgah, NC, Sept. 23 (Bill Sanderson).
GOLDEN EAGLE: Sightings of this rare species included one in Transylvania County, NC, Aug. 27 (Tom Joyce, Bill Siebenheller); an adult at Bluff Mt., Ashe County, NC, Aug. 29 (Merrill & Ida Lynch), two immatures at Rich Mt. Bald, NC, Oct. 18 (Curtis Smalling), one immature at Piney Creek, Alleghany County, NC, Nov. 24 (James Coman), and an immature at Surf City, NC, Nov. 6 (John Hammond, *fide* Taylor Piephoff) providing a very rare coastal report.
MERLIN: This species was found at several inland sites this fall, with the most interesting sightings being three in Alexander County, NC, Oct. 17 (Dwayne & Lori Martin) and two at Clemson, SC, Oct. 1 (Andrew Farnsworth).
SANDHILL CRANE: Sighting of this rare-but-expected species involved one near Shelby, NC, Aug. 25 until the end of September (JoAnn Martin, sev. obs.) And one at the Myrtle Beach, SC, airport Nov. 22 (*fide* Jack Peachey). At least two migrating young cranes joined three previously released adults at Donnelly W.M.A., SC, Oct. 28-Nov. 26 (Lex Glover and Tom Murphy, Donna Bailey).
BLACK-BELLIED PLOVER: Noteworthy inland reports included two at Hooper Lane, Henderson County, NC, Aug. 24 (Wayne Forsythe, Ben Ringer, Marilyn Westphal), one at Falls Lake, NC. Aug. 22-25 (Ricky Davis, Chris Eley), three near Plymouth, NC, Aug. 27 (Ricky Davis), and one near Newton Grove, NC, Sept. 21 (Eric Dean).
AMERICAN GOLDEN-PLOVER: This species was once again reported numerous times in the Carolinas. The best totals included 45 at the Cherry Hospital fields near Goldsboro, NC, Sept. 23 following Hurricane Floyd (Eric Dean and Gene Howe), 26 at the Wright Brothers Memorial, Kitty Hawk, NC, Sept. 5 following Hurricane Dennis (John & Paula Wright, Jeff Lewis), 14 at Hooper Lane, NC, Sept. 7 (Wayne Forsythe), and seven at the Orangeburg, SC, Sod Farm Aug. 29 (Robin Carter *et al.*).
AMERICAN AVOCET: Very rare inland reports included two at Jordan Lake, NC, Aug. 3 (Lee Van Malssen), another one there Aug. 28-31 (Karen Bearden *et al.*, Lee Van Malssen), five at Beaver Lake, Asheville, NC, Oct. 21 (Tim

Lewis, Len Pardue), one at Santee N.W.R., SC, Oct. 17 (Robin Carter and Caroline Eastman), one at L. Murray, SC, Oct. 31 (Lex Glover and David Dobson), and one at L. Brown, Barnwell, SC, Oct. 31 (Mike Turner).

WILLET: Rare inland sightings involved two at Jordan Lake, NC, Aug. 26 (Barbara Gearhart) and one at a New Bern, NC, quarry Sept. 16 following Hurricane Floyd (Wade Fuller).

SPOTTED SANDPIPER: Late or lingering Spotteds were in Catawba County, NC, Nov. 13 (Dwayne & Lori Martin) and Sunset Beach, NC, Nov. 26 (Bob Perkins).

UPLAND SANDPIPER: Upland Sandpiper numbers were down somewhat from previous falls. Some of the better totals were 13 at the Orangeburg, SC, Sod Farm Aug. 23 (Tim Kalbach *et al.*), 10 near Plymouth, NC, Aug. 27 (Ricky Davis), and four at the Manteo, NC, airport Aug. 27 (Jeff Lewis and Keith Watson). A rare mountain sighting involved one found in the roadside grass along the Blue Ridge Parkway at MP 403-404 , Henderson County, NC, Sept. 7, at an elevation of 3900' (Russ & Patricia Tyndall).

LONG-BILLED CURLEW: Always noteworthy, reports of Long-billeds included one at Wrightsville Beach, NC, Aug. 29 (John Brunjes), one at the Wright Brothers Memorial, Kitty Hawk, NC, Sept. 1 (Jeff Lewis), one at Ocracoke, NC, Sept. 4 (Elizabeth Hanrahan), and one at Edisto Beach, SC, Nov. 26 (Sidney Gauthreaux, Carroll Belser, Ritchie Belser). Also two were extremely rare inland in Jones County, NC, Sept. 5 following Hurricane Dennis (Clancy Ballenger).

BLACK-TAILED GODWIT: North Carolina's third Black-tailed Godwit was a complete surprise inland at the Cherry Hospital fields near Goldsboro, NC, Sept. 23, following Hurricane Floyd (Eric Dean). The bird was observed well in flight as it circled the field. The identifying field marks consisted of a long, almost straight godwit bill, distinct wing stripe, white underwing linings, and black and white tail pattern. Of note is that a Hudsonian Godwit was present in the field at the same time for comparison!

HUDSONIAN GODWIT: Peak coastal counts included eight at the Wright Brothers Memorial, Kitty Hawk, NC, Sept. 5 (John & Paula Wright), six at North Pond, Pea Island N.W.R., NC, Aug. 27 (Ricky Davis), and three at Ocracoke, NC, Sept. 10 (Jon Altman). Very rare inland were one at Falls Lake, NC, Aug. 21-23 (Chris Eley, Les Todd, sev. obs.) and one at the Cherry Hospital, NC, Sept. 23 - Oct. 2 (Eric Dean and Gene Howe).

MARBLED GODWIT: One provided a very rare inland report at Jordan Lake, NC, Aug. 28 - Sept. 4 (Will Cook *et al.*, Chris Eley *et al.*).

SANDERLING: Some of the better inland reports included five at Falls Lake, NC, Sept. 6, following Hurricane Dennis (Chris Eley and Ricky Davis), four at the Goldsboro, NC, Wastewater Treatment Plant Sept. 4 (Eric Dean), and three at Hooper Lane, NC, Aug. 24 (Wayne Forsythe, Ben Ringer, Marilyn Westphal).

SEMIPALMATED SANDPIPER: The best totals reported inland were 50 at Jordan Lake, NC, Aug. 28 (Will Cook *et al.*) and 115 at the Winslow Sod Farm, Scotland Neck, NC, Sept. 5 (Ricky Davis).

WESTERN SANDPIPER: Peak inland counts included 18 at the Winslow Sod Farm, NC, Sept. 5 (Ricky Davis), five at Jordan Lake, NC, Aug. 28 (Will Cook

et al.), three at the NCSU Dairy pond, Wake County, NC, Aug. 22 (Brian Pendergraft), three at the Orangeburg, SC, Sod Farm Aug. 29 (Robin Carter *et al.*), and three in Aiken County, SC, Sept. 18 (Anne Waters).

WHITE-RUMPED SANDPIPER: Unusual numbers were found at several inland sites, all resulting from Hurricane Dennis. Thirty-two were at the Winslow Sod Farm, NC, Sept. 5 (Ricky Davis), ten were at the Goldsboro, NC, Wastewater Treatment Plant, Sept. 6 (Eric Dean), and five were at L. Crabtree, Wake County, NC, Sept. 5 (Dan Kaplan). Also an excellent total of 150 were at the Wright Brothers Memorial, Kitty Hawk, NC, Sept. 5 (John & Paula Wright). Two were locally rare at a Winston-Salem, NC, Wastewater Treatment Plant, Aug. 29, as noted by Ramona Snavely, Regina Burt *et al.*

BAIRD'S SANDPIPER: This species was found several times this fall. One was at the Topsail Beach, NC, spoil site Aug. 16 (Bob Holmes and Clancy Ballenger), one was at the Orangeburg, SC, Sod Farm Aug. 21 (*fide* Taylor Piephoff), one was at Jordan Lake, NC, Aug. 22 -31 (Ricky Davis, Doug Shadwick, Sandy Cash, Barbara Gearhart, Will Cook), and two were on a sandbar in the Saluda River at the Saluda - Newberry County line, SC, Sept. 4 (Tim Kalbach, Robin Carter and Caroline Eastman). Also following Hurricane Dennis on Sept. 5, Ricky Davis found singles just east of Rocky Mount, NC, and at the Winslow Sod Farm, Scotland Neck, NC.

PECTORAL SANDPIPER: The peak count reported was the 400+ at the Orangeburg, SC, Sod Farm Aug. 29 (Columbia Audubon Society).

CURLEW SANDPIPER: The number of sightings of this species has really dropped during the last several years. The only report received was of two at Pea Island N.W.R., NC, Aug. 7 (John Brunjes).

STILT SANDPIPER: Numbers of this sandpiper were down this fall season. Locally noteworthy were one at Falls Lake, NC, Aug. 8 (Les Todd *et al.*), one in Anderson County, SC, Aug. 14 (Mike Turner), one in Timmonsville, SC, Aug. 22 (Turner), and one at Hooper Lane, NC, Sept. 26 (Wayne Forsythe and Simon Thompson).

BUFF-BREASTED SANDPIPER: This species once again was reported in widespread fashion. At Hooper Lane, NC, this species was present from Aug. 23 with two, followed by eight on Aug. 29, and peaking at 12 on Sept. 19 (Wayne Forsythe). Three was the peak count at the Orangeburg, SC, Sod Farm Aug. 23 (Tim Kalbach *et al.*), and two were at the Winslow Sod Farm, Scotland Neck, NC, Aug. 15 (Chris Newton) and again Sept. 5-12 (Ricky Davis). Others reported included one near Santee, SC, Aug. 14 (Dennis Forsythe), one at Falls Lake, NC, Aug. 21-22 (Chris Eley, Les Todd, Ricky Davis), one at Cowan's Ford Refuge, Mecklenburg County, NC, Aug. 27 (Taylor Piephoff), one at L. Hartwell, SC, Sept. 11 (Bob & Barbara Maxwell, Sidney Gauthreaux, Carroll Belser), and one at C. Hatteras, NC, Sept. 30 (Jon Altman).

SHORT-BILLED DOWITCHER: Some of the more interesting inland sightings involved up to 20 at Falls Lake, NC, Aug. 22 (Ricky Davis) and two in Sumter County, SC, Aug. 29 (Mike Turner).

COMMON SNIPE: Actual observation of migrating flocks of snipe is a rare occurrence. Imagine the surprise of Ricky Davis where at a sand pit pond just east of Rocky Mount, NC, on Oct. 31, he noted a single group of 210 snipe drop from high in the sky to the shoreline!

WILSON'S PHALAROPE: The only reports received were of one at South Pond, Pea Island N.W.R., NC, Aug. 8 (Ricky Davis) and a peak of 10 at the Savannah Spoil Site, SC, Aug. 3 (Steve Calver).
RED-NECKED PHALAROPE: Rare inland reports, apparently not related to storms, included one at Jordan Lake, NC, Aug. 11 (Doug Shadwick) and another at Lake Tillery, NC, Oct. 24 until early November (Grady Goldston). Following Hurricane Dennis, reports involved five at the Wright Brothers Memorial, Kitty Hawk, NC, Sept. 5 (John & Paula Wright) and two at the Winslow Sod Farm, NC, Sept. 5 (Ricky Davis, Frank Enders). Out of a flock of 30+ phalaropes on Falls Lake, NC, Sept. 6, 12 were identified as Red-neckeds (Ricky Davis, Chris Eley). Following Hurricane Floyd, one was at the Cherry Hospital fields, Goldsboro, NC, Sept. 22 (Eric Dean), and one was on L. Paul Wallace, Bennettsville, SC, Sept. 23-26 (Susan Campbell, sev. obs.).
RED PHALAROPE: Very rare inland were one at Falls Lake, NC, Sept. 6, following Hurricane Dennis (Ricky Davis) and one on L. Hickory, NC, Oct. 7, as noted by Dwayne & Lori Martin.
SOUTH POLAR SKUA: North Carolina had the only reports this fall. The best one-day counts were a record seven off Hatteras Aug. 7 and three off Oregon Inlet Aug. 16 (Brian Patteson *et al.*). Also Irvin recorded three during a cruise off Wilmington Aug. 1-8. Other reports off Hatteras included two on Aug. 8 (Paul Guris *et al.*) and one on Aug. 14 (Patteson *et al.*). Also off Oregon Inlet, singles were found Aug. 7 and 9 (Guris *et al.*).
POMARINE JAEGER: The only onshore report involved one during Hurricane Dennis at Roanoke Sound, on Aug. 31 (Jeff Lewis).
PARASITIC JAEGER: Storm related sightings included one on Roanoke Sound, NC, during Dennis Aug. 31 and another there following Floyd Sept. 16 (Jeff Lewis). Other onshore migrants observed involved three at Ocracoke, NC, Nov. 6, one at Nags Head, NC, Nov. 13, and three at C. Hatteras, NC, Nov. 14, all noted by Eric Dean *et al.*
LONG-TAILED JAEGER: The only offshore sightings included singles off Hatteras, NC, Aug. 8 and Oregon Inlet, NC, Aug. 29 (Patteson *et al.*). Much rarer and unexpected was one inland at New Bern, NC, Aug. 30 during Hurricane Dennis, as noted by Bob Holmes.
LAUGHING GULL: Inland reports not related to storms included 12 on Lake Norman, NC, Aug. 27 (Gail B. Ice) and four at Jordan Lake, NC, Oct. 9 (Will Cook *et al.*). Hurricane Dennis brought good numbers inland, with the best totals being 34 at Jordan Lake Sept. 7 (Will Cook), 30 at Falls Lake Sept. 6 (Ricky Davis and Chris Eley), 15 at the Goldsboro, NC, Wastewater Treatment Plant Sept. 5 (Eric Dean), and five at L. Crabtree, Wake County Sept. 5 (Dan Kaplan).
LITTLE GULL: Only one was found this fall, an immature that flew past Kill Devil Hills, NC, Nov. 13 was early (Jeremy Hyman).
BLACK-HEADED GULL: One at C. Hatteras point Nov. 3 provided the only report of this rare but regular species (Taylor Piephoff *et al.*).
THAYER'S GULL: Rare anywhere in the Carolinas, one, an immature, was found at Oregon Inlet, NC, Nov. 6 (David Hughes *et al.*).

LESSER BLACK-BACKED GULL: An excellent count for so early in the season was the 29 at C. Hatteras point Oct. 10, as noted by Susan Campbell and Pat Moore.
GLAUCOUS GULL: Locally rare was a 1st winter Glaucous at Ft. Fisher, NC, Nov. 27-28 (Mark Galizio and Kate Bruce).
SABINE'S GULL: South Carolina got its 3rd or 4th Sabine's Gull when an immature was well-described at the Savannah Spoil Site Sept. 13 (Steve Calver).
ROYAL TERN: Storm-related inland reports included four at the Goldsboro, NC, Wastewater Treatment Plant Sept. 5 - Hurricane Dennis (Eric Dean), two at Falls Lake Sept. 6 - Dennis (Ricky Davis and Chris Eley), and three at Jordan Lake Sept. 16 - Hurricane Floyd (Will Cook).
SANDWICH TERN: The farthest inland report following Hurricane Dennis was of two at Falls Lake, NC, Sept. 6 (Ricky Davis).
COMMON TERN: The best inland totals were had following Hurricane Floyd, with 150 at Lookout Shoals Lake, NC, Sept. 15 (Dwayne & Lori Martin) and 100 at Jordan Lake, NC, Sept. 16 (Will Cook, Harry LeGrand, Mike Tove, Jeff Pippen). After Hurricane Dennis, reports included 16 at Falls Lake Sept. 6 (Ricky Davis), five at Jordan Lake Sept. 7 (Will Cook), and two at L. Crabtree, Wake County, NC, Sept. 5 (Dan Kaplan). Also of note, one was very late at Pea Island N.W.R., NC, Nov. 20 (Will Cook, Josh Rose, Rob Van Epps).
FORSTER'S TERN: Inland storm-related counts included 50 at Lookout Shoals Lake, NC, Sept. 15 (Dwayne & Lori Martin) and 50 at Jordan Lake, NC, Sept. 16 (Will Cook *et al.*), both following Hurricane Floyd. Also of note were seven at L. Marion, Sumter County, SC, Aug. 29 (Mike Turner), six at Falls Lake Sept. 6 (Chris Eley and Ricky Davis), and six at Jordan Lake Sept. 7 (Will Cook), all probably related to Hurricane Dennis.
LEAST TERN: Four were locally unusual inland at Santee N.W.R., SC, Aug. 23, as noted by Tim Kalbach. Other inland reports were involving Hurricane Dennis with one east of Rocky Mount, NC, Sept. 5 (Ricky Davis) and one at Goldsboro, NC, Sept. 5 (Eric Dean).
BRIDLED TERN: Record numbers were found offshore this fall, with 111 counted off Hatteras, NC, Aug. 8 (Brian Patteson *et al.*). Onshore reports associated with storms included three at Edisto Island, SC, Aug. 29 (Robin Carter and Caroline Eastman) and up to 17 in Roanoke Sound, NC, Sept. 1 (Jeff Lewis), both during Hurricane Dennis. Hurricane Floyd brought at least 20 to the New Bern, NC, area Sept. 16 (Wade Fuller and Bob Holmes) and six to Roanoke Island, NC, Sept. 16 (Jeff Lewis).
SOOTY TERN: The best offshore totals were the impressive count of 154 off Hatteras, NC, Aug. 7, and 47 off Oregon Inlet, NC, Aug. 16 (Patteson *et al.*). Hurricane Dennis reports included eight near New Bern, NC, Aug. 30 (Bob Holmes) and four in Roanoke Sound, NC, Aug. 31 (Jeff Lewis). Also three were near New Bern, NC, Sept. 16 following Hurricane Floyd (Bob Holmes and Wade Fuller).
BLACK TERN: The best inland reports received included 26 at L. Paul Wallace, Bennettsville, SC, Aug. 20 (Dick Burk), 21 at L. Hickory, NC, Aug. 24 (Dwayne & Lori Martin), 14 at Lookout Shoals Lake, NC, Aug. 24 (Martins), and 12 at Falls Lake, NC, Aug. 28 (Chris Eley and Gordon Brown).

BLACK SKIMMER: Hurricane Floyd brought several skimmers inland on Sept. 16, with four near New Bern, NC (Wade Fuller), three near Jacksonville, NC, (Buddy Garrett), and one on the Neuse River (Fuller).

EURASIAN COLLARED-DOVE: This species continues to show up in North Carolina. Two were rather far inland at Conover from late September until early October (Dwayne & Lori Martin). Elsewhere one was at Pea Island N.W.R. Oct. 23 (Jeff Lewis), one was at Ft. Fisher Oct. 3 (John Brunjes), and the Beaufort colony had up to 12 birds Nov. 26 (Gene Howe).

WHITE-WINGED DOVE: Another increasing species in North Carolina, White-wingeds were found at Ft. Fisher Sept. 3 (Mary McDavit and Carolyn Bush) and Nov. 27 (John Brunjes), Frisco Nov. 8-14 (*fide* Keith Watson and Pat Moore), Morehead City Nov. 19-22 (John Fussell), Bodie Island lighthouse Nov. 29 (Keith Watson), and at Atlantic, Carteret County in late November (*fide* John Fussell).

BLACK-BILLED CUCKOO: The only report received was of one in Jackson Park, Hendersonville, NC, Aug. 16 (Wayne Forsythe and Ron Selvey).

LONG-EARED OWL: This rare and elusive species was found in the mountains with two separate birds responding to a tape at Bass Lake and Trout Lake near Blowing Rock, NC, Oct. 30 (Dwayne & Lori Martin *et al.*).

SHORT-EARED OWL: Noteworthy reports included one very early at the Orangeburg, SC, Sod Farm Sept. 21 (Pete Worthington), at least four in the Bodie Island, NC, marshes Nov. 6 through the end of the period (Taylor Piephoff *et al.*, sev. obs.), and one at Hooper Lane, NC, Nov. 18 through the end of the period (Wayne Forsythe and Betty McIlwain, sev. obs.). One found injured near Concord, NC, Oct. 25 (*fide* Taylor Piephoff) was taken to the Carolina Raptor Center for rehabilitation.

NORTHERN SAW-WHET OWL: This species staged one of its better flights this fall. Some of the more interesting reports of migrants included four banded at York, SC, Nov. 29-30 (Bill Hilton, Jr.), two banded near Halifax, NC, Nov. 7-8 (Frank Enders), one found injured (later died) at Charleston, SC, Nov. 30 (*fide* Will Post), one seen roosting for a day in Columbia, SC, Nov. 15 (Robin Carter, Caroline Eastman *et al.*), and up to two along the Mashoes Road, Dare County, NC, Nov. 5-6 (Jeff Lewis *et al.*). In the mountains one was heard near Mt. Pisgah, NC, Sept. 12 (Paul Shewmaker), and another was heard near Grandfather Mountain, NC, Oct. 30 (Dwayne & Lori Martin).

YELLOW-BELLIED SAPSUCKER: One near Jordan Lake, NC, Sept. 18 was considered to be early (Will Cook).

EASTERN WOOD-PEWEE: An excellent fall count was the 30+ at Jackson Park, Hendersonville, NC, Sept. 22, as noted by Wayne Forsythe *et al.* Also one was late at Clemson, SC, Nov. 12 (Andrew Farnsworth).

YELLOW-BELLIED FLYCATCHER: One provided a rare fall sighting at Columbia, SC, Sept. 21 (Robin Carter), for the only report received.

LEAST FLYCATCHER: One was quite rare at the coast on Roanoke Island, NC, Sept. 11, as noted by Jeff Lewis.

ASH-THROATED FLYCATCHER: North Carolina's third Ash-throated was found near Hooper Lane, Henderson County, for one day only Oct. 28 (Wayne Forsythe, Ron Selvey, Rick Hensley, Bill Green). The bird was observed well and videotaped for documentation. And amazingly, the state's fourth

Ash-throated was found, again for one day only, at Bodie Island lighthouse Nov. 7 (Tom Gwynn, David Hughes *et al.*). With two found at opposite ends of the state this fall, one wonders if there were more individuals in our area that went undetected.

WARBLING VIREO: This is a rare fall migrant in the Carolinas, thus of note were one at Jackson Park, Hendersonville, NC, Sept. 17-18 and 22 (Wayne Forsythe, Simon Thompson *et al.*), one at Beaver Lake, Asheville, NC, Sept. 20 (Len Pardue), and an amazing three different individuals at the coast on Roanoke Island, NC, Sept. 12, Oct. 1 & 6 (Jeff Lewis).

PHILADELPHIA VIREO: Either this species is increasing or observers are looking for it more than they used to. Continuing a trend for the last several years, reports were numerous and widespread. One of the most interesting reports was an unprecedented one-day count of 12 at Jackson Park, NC, Sept. 22 (Wayne Forsythe *et al.*). And coastally, where decidedly less common, two were on Roanoke Island, NC, Sept. 17-23 (Jeff Lewis, Lee Yoder), and one was at C. Lookout, NC, Sept. 23 (Rich Boyd).

CAVE SWALLOW: This species staged a major flight into the East this fall. Reports from the Carolinas included two at the Savannah Spoil Site, SC, Nov. 1 (Steve Calver), 5-6 at Sunset Beach, NC, Nov. 10 (Mark Oberle), and two Cave/Cliff types at Huntington Beach State Park, SC, Nov. 27 (Jack Peachey, Gary Phillips, Kenneth Behrens). In late November, Cave Swallow is considerably more likely, especially in a flight year.

RED-BREASTED NUTHATCH: There was a good influx of Red-breasteds this fall. Reports came from across the Carolinas, with the best count being 20 at Blue Ridge Junction Overlook, Yancey County, NC, Oct. 3 (Dwayne & Lori Martin). We'll have to see if the birds remain for the winter in this fashion.

CAROLINA WREN: One was a surprise on the top (6200' elev.) of Roan Mt., NC, Nov. 28 (Rick Knight). This is rather late for the species to be at that elevation.

HERMIT THRUSH: Two were quite early at Blue Ridge Junction Overlook, Yancey County, NC, Sept. 19 (Dwayne & Lori Martin).

GRAY-CHEEKED THRUSH: In a fall migration which had few positive thrush reports, the presence of 10 Gray Cheekeds in Fairfield County, SC, Sept. 11 (Donna Bailey) was easily the highest count for this species.

GRAY CATBIRD: One at Jackson Park, Hendersonville, NC, Nov. 9 (Ron Selvey), late for that area, was probably a result of the mild fall.

GOLDEN-WINGED WARBLER: One was locally rare on the coast at the Savannah Spoil Site, SC, Oct. 10, as noted by Steve Calver.

"BREWSTER'S" WARBLER: This hybrid was found once, with one in western Buncombe County, NC, Aug. 24 (Len & Esther Pardue).

TENNESSEE WARBLER: This species tends to migrate through the western portions in the fall, so coastal sightings of note included two at New Bern, NC, Sept. 23 (Bob Holmes), one at C. Lookout, NC, Sept. 23 (Rich Boyd), and singles at Roanoke Island, NC, Sept. 11 & 14 (Jeff Lewis). One was quite late at Pea Island N.W.R., NC, Nov. 7 (John Fussell, sev. obs.).

NASHVILLE WARBLER: This species was reported much more than normal this fall. The best one-day totals included five at Jackson Park, NC, Sept. 22 (Wayne Forsythe *et al.*), four on North Carolina's Outer Banks Sept. 11 (Jeff

Lewis), two at Ft. Jackson, Richland County, SC, Oct. 2 (Lex Glover), and two on Roanoke Island, NC, Oct. 7 (Lewis). Also of note were late Nashvilles, with one at Laurinburg, NC, Oct. 29 (Barbara Gearhart) and one at Pea Island N.W.R., NC, Nov. 3 (Gene Howe).

CHESTNUT-SIDED WARBLER: Three at Pea Island N.W.R., NC, Oct. 1 (Bob Holmes) provided an excellent count for that coastal locality.

MAGNOLIA WARBLER: One was very late at L. Mattamuskeet, NC, Nov. 25, as noted by Gary Felton.

BLACKBURNIAN WARBLER: An excellent one-day total was the 15 at Blue Ridge Junction Overlook, NC, Aug. 22 (Dwayne & Lori Martin). This species is much harder to find at the coast, so of note were one at Ft. Macon, NC, Sept. 18 (John Fussell) and singles at New Bern, NC, Sept. 23 & Oct. 6 (Bob Holmes).

BLACKPOLL WARBLER: One was quite late at Cliffs of the Neuse State Park, NC, Nov. 19 (Gene Howe).

AMERICAN REDSTART: Another late warbler was the Redstart at L. Mattamuskeet, NC, Nov. 25 (Gary Felton). This lake is one of the best areas for holding late and lingering warblers in the Carolinas.

SWAINSON'S WARBLER: One was locally rare and an excellent find at Roanoke Island, NC, on the late date of Sept. 21 (Jeff Lewis).

KENTUCKY WARBLER: Rare coastal sightings involved one on Roanoke Island, NC, Sept. 9 (Jeff Lewis) and one at the Savannah Spoil Site, SC, Oct. 10 (Steve Calver).

CONNECTICUT WARBLER: The rare Connecticut was reported four times this fall, with singles at Jordan Lake, NC, Sept. 18 (Doug Shadwick), at Pea Island N.W.R., NC, Oct. 2 (Keith Watson *et al.*), at Townville, SC, Oct. 14 (Bob & Barbara Maxwell), and at Clemson, SC, Oct. 1 and 15 (Andrew Farnsworth).

MOURNING WARBLER: Two reports of this rare species included an immature male at Charlotte, NC, Sept. 3-6 (Wayne Covington, Judy Walker) and another imm. male at Jackson Park, NC, Sept. 25-27 (Wayne Forsythe, Ron Selvey *et al.*).

WILSON'S WARBLER: This species was reported more frequently than normal this fall. Some of the more interesting sightings included an amazing count of five at Jackson Park, NC, Sept. 22 (Wayne Forsythe *et al.*), two at James Island, SC, Sept. 25 (Lex Glover *et al.*), and at least six different birds on Roanoke Island, NC, from Sept. 18 until Oct. 17, with the peak being three on Sept. 18 (Jeff Lewis). Also one was late at L. Mattamuskeet, NC, Nov. 26, as noted by Gary Felton and Ernie Marshall.

CANADA WARBLER: Canada Warblers become much rarer as one gets to the coast. This fall Lewis had 1-2 on Roanoke Island, NC, Sept. 13-17, excellent finds for that locality.

YELLOW-BREASTED CHAT: Lake Mattamuskeet, NC, also hosted a lingering chat, with one present Nov. 20 -25 (Jeff Lewis, Gary Felton).

AMERICAN TREE SPARROW: This species is rare anywhere in North Carolina. This fall three were found near the Swannanoa River, Asheville, Nov. 1 (Greg Massey); and at Pea Island N.W.R., one was at South Pond, Nov. 5-7 (Simon Thompson *et al.*, m. obs.) and another was at North Pond Nov. 7-8

(David Hughes *et al.*, sev. obs.).
CLAY-COLORED SPARROW: This species is usually found along the coast during fall migration. The best one-day count this year was four at Pea Island N.W.R., NC, Oct. 24 (Jeff Lewis). Much rarer were Clay-coloreds in the mountains at Hooper Lane, NC, with one Oct. 2 -10 and two there Nov. 7 (Wayne Forsythe, Ron Selvey, Simon Thompson).
LARK SPARROW: Lark Sparrow reports at Pea Island, NC, consisted of three Aug. 24 (Jeff Lewis), one Sept. 23 (Lewis), two Oct. 1 (Bob Holmes, Lewis), and one there Nov. 7 (Wings Over Water, m. obs). Single Lark Sparrows were found on Younges Island, SC, in early September (*fide* Dennis Forsythe), at Ft. Fisher, NC, Sept. 3 (Mary McDavit and Carolyn Bush) and Sept. 18 (John Brunjes), and at L. Mattamuskeet, NC, Nov. 26 (Sandy & Hartsell Cash).
GRASSHOPPER SPARROW: Noteworthy fall sightings involved one at Hooper Lane, NC, Oct. 13 & 31 (Wayne Forsythe and Rick Hensley), one in Mecklenburg County, NC, Oct. 23 (Taylor Piephoff *et al.*), and one at Santee N.W.R., SC, Oct. 24 (Tim Kalbach *et al.*).
HENSLOW'S SPARROW: Rare fall reports of this elusive species were one at Santee N.W.R., SC, Oct. 24 & Nov. 25 (Tim Kalbach) and one at Huntington Beach State Park, SC, Nov. 7 (Jack Peachey and Gary Phillips).
LeCONTE'S SPARROW: An excellent count of four was had at Santee N.W.R., SC, Nov. 25 (Tim Kalbach). The only other report of this rare and secretive sparrow was of one at Pea Island N.W.R., NC, Nov. 20 (Haven Wiley *et al.*).
NELSON'S SHARP-TAILED SPARROW: Sharp-tailed Sparrows are very rarely found inland in the Carolinas, although they regularly migrate over these areas. Thus excellent finds were the two different Nelson's found at Hooper Lane, NC, Oct. 8-10 and Oct. 13-16 (Wayne Forsythe, Ron Selvey *et al.*).
LINCOLN'S SPARROW: The Hooper Lane, NC, area had excellent numbers of this sparrow, with 15+ sightings over a two-week period in early October (Wayne Forsythe, sev. obs.). Other noteworthy reports included two in Transylvania County, NC, with one along Wilson Road Oct. 2 (Tom Joyce) and one at Hospital Fields Oct. 9 (Norma & Bill Siebenheller); one at Castleford, Watauga County, NC, Oct. 8 (Curtis Smalling); one at Mason Farm, Chapel Hill, NC, Oct. 25 (Jim Bloor) and during mid-November (John Gerwin); and one at Laurinburg, NC, Nov. 13 (Barbara Gearhart).
SNOW BUNTING: North Carolina had the only reports, with up to four at C. Hatteras in early November (Eric Dean *et al.*, sev. obs.), up to three at Oregon Inlet Nov. 5-8 (John Fussell *et al.*, sev. obs.), one at Ft. Macon Nov. 11-13 (Randy Newman), and one at Sunset Beach Nov. 11 (Mark Oberle).
ROSE-BREASTED GROSBEAK: This species often migrates in the fall in good numbers through the mountain passes, but rarely are numbers counted. The magnitude of this passage was noted this fall, when 137 were counted at Ridge Junction Overlook, Yancey County, NC, on Sept. 19 (Dwayne & Lori Martin).
INDIGO BUNTING: One was slightly late at Red Hill, Edgecombe County, NC, on Nov. 21, as noted by Ricky Davis.
PAINTED BUNTING: The Buxton, NC, area has been known to hold wintering Painted Buntings for several years now. This fall, four returned to the

usual feeder on Nov. 16, presumably for the winter (Chuck Hebenstreit, *fide* Pat Moore).

DICKCISSEL: Rare but regular in fall, sightings included one at Pea Island, NC, Sept. 11 (Pat Moore *et al.*) and Oct. 14 & 23 (Jeff Lewis), one on Roanoke Island, NC, Sept. 17-19 and Oct. 7 (Lewis), one at Morehead City, NC, Oct. 1 (John Fussell), and one at Clemson, SC, Oct. 6 (Andrew Farnsworth).

YELLOW-HEADED BLACKBIRD: Three reports this fall consisted of a female at C. Hatteras, NC, Aug. 19 (*fide* Jon Altman, Marcia Lyons), an imm. male at Tibwin Plantation, Charleston County, SC, Sept. 2 (Mike Bernard), and an adult male near Beulaville, Duplin County, NC, Nov. 26 (Patricia Earnhardt-Tyndall).

SHINY COWBIRD: Two different birds at C. Romain N.W.R., SC, Aug. 27-28 (Paul Sykes) provided the only report for the fall season.

PURPLE FINCH: This species arrived in the Carolinas in small numbers but were spread across the two states. The earliest arrivals included three in Orange County, NC, Sept. 17 (Randy Dunston, *fide* Will Cook) and one near Ft. Motte, Calhoun County, SC, Sept. 21 (Mike Turner).

RED CROSSBILL: Thirteen crossbills were a good find at Blue Ridge Junction Overlook, Yancey County, NC, Aug. 28 (Dwayne & Lori Martin). The Burrell's Ford - Walhalla Fish Hatchery area in South Carolina hosted up to 15 during September and early October (Donna & Dennis Forsythe, Bob & Barbara Maxwell, Sidney Gauthreaux and Carroll Belser *et al.*, Tim Kalbach, Lex Glover; sev. obs.).

COMMON REDPOLL: A Common Redpoll found for one day at Alligator River N.W.R., NC, Nov. 14 (Bob Holmes *et al.*) provided one of the very few reports of that species in the Carolinas for many years.

EVENING GROSBEAK: Several reports of this much-hoped-for species trickled in this fall. Numbers were small, with the best count reported being 20+ on Roan Mt., NC, Nov. 28 (Rick Knight). Quite unusual was the immature bird at Roanoke Island, NC, on the extremely early date of Sept. 19 (Jeff Lewis). Could this foretell of some sort of winter influx of this species?

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The Chat

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Quarterly Bulletin of Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas
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Vol. 64 SUMMER 2000 No. 3

The Quarterly Bulletin of the Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas

THE CHAT

(USPS 101-020)

Vol. 64 SUMMER 2000 No. 3

Published by The Carolina Bird Club, Inc.

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THE CHAT is published quarterly for $20.00 by the Carolina Bird Club, Inc., with headquarters at the North Carolina State Museum of Natural Sciences, 11 West Jones Street, Raleigh, NC 27601-1029. Second-class postage paid at Raleigh, NC. POSTMASTER: Send address changes to The Carolina Bird Club, THE CHAT, 11 West Jones Street, Raleigh, NC 27601-1029.

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The Role of the White Wing Patch In Communication Among Northern Mockingbirds

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Introduction

The wing patch of Northern Mockingbirds (*Mimus polyglottos*) is formed from white on the primaries and on a row of greater primary coverts. The tips of the primaries, the lesser coverts, and the secondaries, all of which border the wing patch, are grayish-black. Because the white patch stands in sharp contrast to the gray-black surrounding it, the wing patch could be relatively visible even at fair distances in poor light. Such patches could potentially transmit information over long distances in the openness of typical mockingbird habitat.

In other avian species, such patches of color are known to be used by males as intrasexual "status" signals - that is, signals of ability to win in a contest over resources. Many are signals of age-sex class, which is often associated with dominance (Fugle *et al.* 1984; Holberton *et al.* 1989; Jackson *et al.* 1988; Ketterson 1979; Parsons & Baptista 1980; Rohwer 1977, 1978; Watt 1986a, b). Status signals operating within age-sex classes have been found in Red-winged Blackbirds (*Agelaius phoeniceus*: Smith 1972; Peek 1972; Hansen & Rohwer 1986; Røskaft & Rohwer 1987; Eckert & Weatherhead 1987), House Sparrows (*Passer domesticus*: Møller 1987a, b; Møller & Erritzoe 1988), Least Auklets (*Aethia pusilla*: Jones 1990), Great Tits (*Parus major*: Järvi & Bakken 1984), Yellow Warblers (*Dendroica petechia*: Studd & Robertson 1985), and Eurasian Siskins (*Carduelis spinus*: Senar *et al.* 1993).

Mockingbirds, which exhibit aggressive territoriality year-round, could benefit from an effective, long-distance visual signal of presence and/or competent defense. Such a signal could supplement or alleviate singing and calling, reduce the frequency of territorial intrusions, and help settle contests by display in lieu of escalated combat. The behavior of mockingbirds supports this reasoning. Intrasexual territorial chases without physical contact are observed as often as once per hour during daily active times in the breeding season, but escalated fighting with physical contact is extremely rare by comparison (M. Justice, unpublished data). This suggests that many aggressive interactions are settled with signals, thereby avoiding escalation to physical contact. Because chases necessarily involve exposure of the wing patch, mockingbirds could make use of its signal value in this context. Indeed, exposure of the wing patch occurs during bouts of singing (in flight displays) and occurs year-round, while singing does not.

Presumably, the ability of male mockingbirds to defend their territory is a highly variable trait. If the wing patch corresponds to status, it too will be highly variable. Justice & Justice (1998) quantified various parameters of the wing patches of 34 male mockingbirds. They found considerable variability in the size of the wing patch. Most of the size variability was in its "length" from the wrist to its edge on primaries 1-4. The "width" of the wing patch (due more to the amount of white on primaries 5-10), the whiteness of the patch, and the white-gray contrast with the surrounding feathers have also been measured. These were all found to be considerably less variable (Justice & Justice 1998; M. Justice, unpublished data).

If male mockingbirds use wing patch size as a reliable signal of competence in territorial defense, then two predictions can be made. First, the frequency and intensity of territorial contests should negatively correlate with wing patch size. Mockingbirds with large wing patches will be recognized as better defenders, and conspecifics will avoid conflicts with them. Second, manipulating the size of the wing patch should influence the frequency and intensity of contests. Specifically, decreasing its size may allow for bolder conspecific intrusions into the territory, resulting in more, or more intense, territorial interactions. Further, eradicating the wing patch entirely should lead to aggressive interactions even more frequent and extreme.

Methods

Samples for these studies were taken from a population of wild mockingbirds residing on the 72ha suburban residential campus of The University of North Carolina at Greensboro (36°N 79°W). The campus is in a piedmont in southeastern North America. It supports approximately 60-70 individual mockingbirds, the majority of which were color banded for this study. Federal and state permits and IACUC approval were obtained prior to trapping and data collection. Wooden, 25cm-square "platforms," attached atop 1.6m posts, were built, and one was placed in every mockingbird territory on campus to serve as a feeding and trapping station. For feeding, two tablespoons of a peanut butter/cornmeal mix were placed on each platform twice per week. For trapping, 18cm-cube treadle traps were placed in randomly selected territories and baited with the peanut butter/cornmeal mix.

Adult mockingbirds cannot be definitively sexed by external morphology. Upon trapping an unbanded mockingbird, the likelihood of its being male was assessed using wing patch size (see Justice & Justice 1998). Upon trapping a banded mockingbird, records of prior sex-specific behavior were typically available. Upon capture of a male (or likely male), the bird was first banded (if necessary), then wing patch size and wing length were measured as described in Justice & Justice (1998), and finally its wing patch size was manipulated experimentally as described below.

A dark gray, nontoxic ink was applied to the dorsal and ventral surfaces of both wings. Using stratified random assignment, three groups were formed, and ink was applied to each group differently. In the "reduced" group, the ink reduced the size of the wing patch by covering all of the white area on the primaries beyond the distal edge of the greater coverts. This produced birds with wing patches smaller than ever naturally observed and also manipulated the "length"

of the wing patch. In the "covered" group, the ink completely eliminated the wing patch by covering all the white on the primaries and greater coverts. The control group included both sham and non-sham controls. Sham controls had their wing patches left intact, but the gray area on the primaries was inked. Non-sham controls were banded and measured but no ink applied. The ink was dried by gently separating and blowing on the feathers, and the bird was released after approximately 20 minutes handling time. The ink wore off sufficiently to reveal the original wing patch after about one to three weeks, but some ink usually remained until the next molt.

Focal-animal sampling (Altmann 1974) of behavior began at least one day following capture and was completed before the ink began to fade. The total sample time was divided into 15-second bins, and the occurrence and/or frequency of various behaviors was recorded as having occurred in a particular bin. No blinds were used because this population is routinely exposed to the close presence of humans. All samples were taken during the birds' most active times (0700 - 1130hr and 1600 - 1900hr). Perch locations were recorded in the field on a small-scale map of the campus so that subjects' territory boundaries were known.

"Chases" of an intruder were scored when the territory resident flew in the direction of a conspecific intruder. Four types of chases were distinguished and numbered higher as the severity of the interaction increased:

Type 1 - The intruder left without offering any resistance, that is, the intruder's flight path remained pointing away from the center of the resident's territory;

Type 2 - The intruder offered some resistance before leaving, such as flying back toward the center of the resident's territory or perching within the resident's territory;

Type 3 - There was physical contact involved, but it occurred near the territory border; and

Type 4 - There was physical contact in or near the center of the resident's territory.

The duration of chases was also measured. Time began when the birds involved were within 5m of one another and ended when the resident ceased to chase. The observer also recorded when the focal animal sang. Lastly, if all visual and acoustical contact with the bird was lost for more than 15s, this was scored as "time-out time." The remaining sampling time will be referred to as "time-in time."

For the behavioral measures, each individual bird's mean across samples was calculated. These individual means were averaged to obtain group means. Parametric statistics were used wherever the data met the assumptions. Sample sizes vary because not all measures were available for all birds. Because sample sizes were generally small, indices of the strength of the relationship between the independent and dependent variable were computed for most inferential statistics.

Results

A total of 24 male mockingbirds were sampled for this study. Six non-sham controls were not different from three sham controls on any of the dependent measures (two-tailed Mann-Whitney U statistics, all p values > 0.25), and thus

these were combined into one larger control group for all subsequent analyses. There were nine control birds, nine reduced birds, and six covered birds. Mean ± SD hours of time-in time for the control birds was 4.8 ± 1.52, for the reduced birds was 2.9 ± 0.52, and for the covered birds was 2.6 ± 0.75. There was no difference between the groups in the percentage of sampling time that was time-in time (Kruskal-Wallis $H = 2.796$, $n = 24$, $p = 0.25$; overall mean = 86.4%). Wing lengths (as defined in Justice & Justice 1998) were compared between groups, and the differences were small: mean ± SE wing lengths for control birds was 112.3 ± 1.53, for reduced birds was 110.8 ± 1.46, and for covered birds was 111.5 ± 1.60 ($H = 0.16$, $n = 24$, $p = 0.92$).

Mean ± SE number of chases per hour of time-in time for control birds was 0.50 ± 0.225, for reduced birds was 0.41 ± 0.208, and for covered birds was 1.78 ± 0.418 ($H = 8.363$, $n = 24$, $p = 0.015$, $\epsilon_R = 0.55$; Fig. 1). Post-hoc protected rank-sum tests provided evidence that covered birds had more chases per hour than both reduced ($z = 2.59$, one-tailed $p = 0.005$) and control birds ($z = 2.36$, one-tailed $p = 0.009$). The average duration of chases did not differ between the three groups. The mean ± SE average duration (in seconds) for control birds ($n = 9$) was 7.1 ± 2.71, for reduced birds ($n = 9$) was 4.7 ± 1.98, and for covered birds ($n = 3$) was 17.4 ± 11.44 ($H = 1.882$, $n = 21$, $p = 0.55$). The average intensity score of chases also did not differ across the three groups. The mean average intensity score for control birds ($n = 5$) was 1.39 (range 1.00 - 1.67), for reduced birds ($n = 4$) was 1.55 (range 1.00 - 2.00), and for covered birds ($n = 4$) was 1.67 (range 1.00 - 2.00) ($H = 1.118$, $n = 13$, $p = 0.57$). Note that, in keeping with other results, the proportion of birds involved in chases was highest in the covered group (5/6) and about equal for reduced (4/9) and control (5/9) birds.

Song production did not differ across the three groups. Mean ± SE bins with song per bins of sampling time for control birds ($n = 9$) was 0.18 ± 0.056, for reduced birds ($n = 9$) was 0.25 ± 0.081, and for covered birds ($n = 6$) was 0.21 ± 0.074 ($H = 0.151$, $n = 24$, $p = 0.93$). Thus there is no evidence for changes in song output as a result of the manipulation.

Mating status and breeding phase are known to influence many aspects of mockingbird behavior (Logan 1983, 1988, 1994; Breitwisch *et al.* 1986; Breitwisch & Whitesides 1987). Four of the reduced birds were unmated, and all other birds in the study were mated. In order to control for breeding phase, the analyses were rerun using only mated birds in the nest building phase of the breeding cycle. Sampling time in other phases was too small to permit individual analyses.

Using only mated birds in the nest-building phase affected one result: The average duration of the territorial interactions was in the predicted direction and statistically significant. Mean ± SE average duration of chases (in seconds) for control birds ($n = 4$) was 0.4 ± 0.42, for reduced birds ($n = 3$) was 11.5 ± 1.92, and for covered birds ($n = 3$) was 17.3 ± 11.44 ($H = 6.876$, $n = 10$, $p < 0.01$, $\epsilon_R = 0.83$; Fig. 2). Post-hoc comparisons showed covered birds had longer chases than control birds ($z = 2.12$, $p = 0.017$). Two other measures with sufficient sample sizes for testing were unchanged by controlling for mating status and breeding phase. First, number of chases per hour of time-in time was still different between the groups: mean ± SE for control birds ($n = 4$) was 0.13 ± 0.128, for reduced birds ($n = 3$) was 0.83 ± 0.447, and for covered birds ($n = 3$) was 1.88 ±

0.195 (H = 6.168, n = 10, $p < 0.046$). Second, number of bins with song per bins of sampling time was still not different between the groups: mean ± SE for control birds (n = 4) was 0.31 ± 0.073, for reduced birds (n = 3) was 0.24 ± 0.013, and for covered birds (n = 3) was 0.31 ± 0.120 (H = 0.164, n = 10, p = 0.921).

Using only control birds, wing patch size was not significantly negatively correlated (one-tailed p values above 0.05) with number of chases per hour of time-in time (Spearman's rho = 0.458, n = 9), average intensity score of chases (rho = - 0.616, n = 5), or average duration of chases (rho = 0.390, n = 9). Controlling for breeding phase (by only using data for one phase) did not change the results of the correlational analyses. Thus, territorial interactions were not inversely related to wing patch size in control birds.

An important addition to these results comes from casual observations of the resident female, which could often be readily seen for a large proportion of the sampling time. Field notes on the females' behavior were taken, particularly if the behaviors seemed out of the ordinary. These notes, although anecdotal, suggest the possibility that reducing or covering the males' wing patches had a disruptive effect on the maintenance of the pair bond. For example, one of the covered males could not evict another male that would regularly enter the territory and interact with the resident female. Another covered male lost his territory and his female to a neighboring male. Three of the experimental males' females were seen leaving the territory and interacting with the neighboring male, which in turn led to chases between the males involved. Such episodes are extremely infrequent among unmanipulated birds.

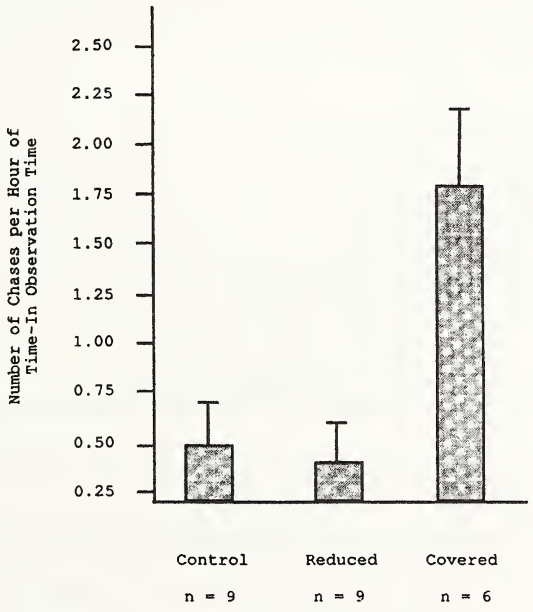

Figure 1. Both unmated and mated males in all breeding phases were used here. Error bars are one SE.

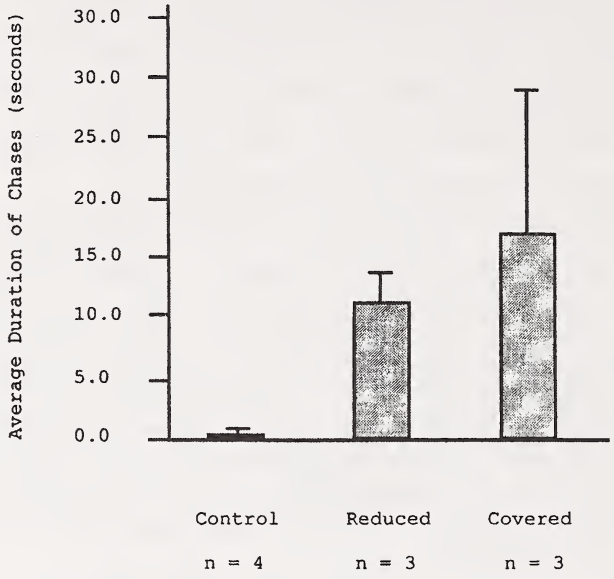

Figure 2. Only mated birds in the nest building phase were used here. Error bars are one SE.

Discussion

The above results showed that –

1) covering the wing patch produced statistically significant increases in territorial interactions;
2) reducing wing patch size produced insignificant increases in measures of territorial interactions (apparent when mating status and breeding phase is controlled)that were not statistically significant;
3) paradoxically, wing patch size is not inversely related to territorial interactions in unmanipulated birds; and
4) manipulating the wing patch may have adversely affected the pair bond.

There are now three alternative (but not mutually exclusive) explanations of wing patch function that need to be considered.

Explanation 1: Larger wing patch size is a signal of greater ability to defend the territory. This explains why covering the wing patch increased territorial interactions: The manipulation removed an important signal for territory defense. This explanation, however, would require that reducing the wing patch also produces significant increases in territorial interactions; yet the observed changes, although in this direction, are not significant. If the effect size of reducing the wing patch is smaller than that of covering the wing patch, then perhaps this result

was not significant because of sample size. Also, this explanation requires that territorial interactions would be negatively correlated with wing patch size in control birds. The observed results are either not significant or in the opposite direction. In sum, then, there is only weak evidence supporting this explanation.

Explanation 2: The presence of a wing patch is a species recognition marker. Some close relatives of Northern Mockingbirds do not have wing patches, so Northern Mockingbirds may have evolved a wing patch for species recognition. Conspicuous signals for species recognition could be beneficial to mockingbirds in two ways: 1) while investigating potential territories, a signal could indicate an occupied area; and 2) once the territory is established, species markers should lower the frequency of territorial behaviors misdirected at heterospecifics.

If potential intruders can use the wing patch to tell that an area is being defended by a conspecific, then the pattern of results seen here can be interpreted in the following way. Covering the wing patch led to territorial interactions because potential intruders did not receive a signal that the area is being defended by a conspecific. Reducing the wing patches did not dramatically increase territorial interactions because a signal of species was still present. Territorial interactions did not increase as wing patch size decreased in unmanipulated birds because all unmanipulated birds had intact signals for species identification.

Explanation 3: Females use the size of the male's wing patch as a signal of the male's quality. Covering or reducing the wing patch causes pair maintenance problems because the males' low quality is being signaled to their mates. These pair maintenance problems may have been caused by the manipulation itself or by the consequent increase in male-male agonistic interactions. This explanation, however, was prompted by anecdotal observations. Systematic observations of the females' behavior and delineation of the communicative role of the wing patch in females are needed.

No one of the above explanations stands out as entirely better able to explain the entire set of data presented here. These three explanations are certainly not mutually exclusive, however. Indeed, they could be considered complementary. The presence (versus absence) of the wing patch may be a cue to species recognition. The size of the male's wing patch may signal both males and females. The male-to-male signal may serve territory formation and defense, while the male-to-female signal may serve mate acquisition and retention.

Acknowledgments

Sigma Xi, The Scientific Research Society, and The American Museum of Natural History financially supported this research. Cheryl Logan, Richard Shull, Robert Gatten, John Lepri, David Soderquist, Teresa Justice, and an anonymous reviewer provided many helpful suggestions that greatly improved the project and the manuscript. Lachovia Parrish, Daniel Huff, Beth Donaghey, and Shane Merrill each generously provided their thoughts and time toward various aspects of this project.

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Calliope Hummingbird in South Carolina

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On 4 December 1999, Judy Webb was planting flowers in her yard in Greer, SC, when she was startled to hear the whir and 'chittering' of a hummingbird as it passed over her head. She had only learned the day before (from an article by Jennifer Greer in *Southern Living* magazine) of western hummingbirds that wintered in the South. She quickly located the tiny emerald beauty feeding on Sasanqua blooms. After watching briefly, she ran inside to get her husband, Charles, and his camera. They were able to locate the bird and take some quick documentary photos as the bird perched on a low branch of a leafless maple tree (*Acer sp.*). Darkness was falling, and the bird soon disappeared into the night. The Webbs retrieved their hummingbird feeders (which had been packed away since the end of October) and filled them with fresh mixture of sugar water. By noon the next day, the bird was a regular visitor at the feeders.

Mrs. Webb relocated the *Southern Living* magazine and found its reference to Bob Sargent. She called Sargent on 6 December and described a small hummingbird with a few rose-colored feathers in the gorget area. She insisted that the color of the reddish feathers in the throat was not the same as that of a Ruby-throated Hummingbird, *Archilochus colubris*. She provided a detailed description of a small hummingbird with a short bill and tail. She noted that the bird displayed a "yellowish wash" just in front of the wrist section of the wing. Her description seemed to Sargent to fit that of a young male Calliope Hummingbird. Mrs. Webb forwarded to Mr. and Mrs. Sargent a series of photographs that confirmed all parts of her description except for that of the rose-colored feathers in the throat.

The Sargents arrived at the Webbs' yard at about 11 AM EST on 10 December. The Sargents recognized the bird as an immature male Calliope Hummingbird, *Stellula calliope*. It was hawking insects and feeding some 10 m distant on one of several varieties of *Camellia japonicas*. The Sargents promptly

Fig. 1. Immature male Calliope Hummingbird in Greer, SC. Photo by Charles Webb, MD.

erected their cage-wire trap, baited it with the hummingbird feeder, and captured the bird.

Mr. Sargent's initial impression was that the bird was robust and remarkably healthy. Sargent found the rose/carmine feathers in the throat to be dazzling as the bird was secured in a mesh holding bag prior to banding. Sargent banded the bird at 11:36 AM EST with band # 3000Y69014. The following measurements were taken with a Starrett digital caliper: Wing- 40.07mm, tail-21.1mm, and exposed culmen-15.07mm. His weight on an Ohaus digital scale was 3.13 grams. About 40% of the upper mandible was grooved when examined for striations with an 16x jeweler's loupe. The grooves were shallow and would have been difficult for Sargent to have detected without the loupe. These grooves confirmed that it was a hatching year individual. The incomplete gorget and the white tips of the outer rectricies confirmed that this individual was an immature Calliope Hummingbird. The many rose-red gorget feathers confirmed the sex as male.

The bird had a layer of fat that Sargent graded as one on a scale of zero to three. The only molt was a few pinfeathers on the belly. The rectrices were short and wide with blunt tips. The outer rectrices were hourglass shaped and bordered with a reddish/rufous trim along the restricted sides of the feathers. Sargent recognized this feature as diagnostic in Calliope Hummingbirds. Sargent took a few old and worn feathers for immediate documentation purposes. The Sargents hope the feathers will be used later for DNA studies similar to those that are now ongoing in other species. Several in-hand macro photos were taken and submitted to the South Carolina Bird Records Committee.

For several years the Webbs had been trying to restore a couple of acres around their home to become a bird habitat. Now, the first Calliope Hummingbird reported from South Carolina had been trapped, banded, and released at their home.

Early the next morning after the Sargents left, birders from across the Carolinas began arriving at the Webbs' home to see the juvenile male Calliope. In all, over 150 people from seven states and three from England would watch the bird from the comfort of a heated sunroom and share the wonder of such a tiny creature braving the elements.

Within days of the Sargents' departure, freezing weather killed the last of the nectar-producing flowers. The Calliope's visits to the feeders became longer and more frequent. Keeping the sugar water from freezing at 26° F became a concern. The Webbs mounted an outdoor heat lamp under a protective cover just above and to the side of what became the primary feeder. They began using it before they felt it was necessary in order to help the bird adjust to it before it became critical. The Webbs also mounted a small grower's thermometer to the feeder. Adjacent to the feeder is a 5 m juniper (*Juniperus sp.*) strung with white Christmas lights year-round. The Calliope spent chilly mornings in the juniper, perching near a light, seemingly to seek its warmth, and making frequent trips to the feeder. The Webbs added another string of lights, clumping them in the area he most often used, and left the lights burning until the day warmed and he flew off to seek insects.

On a rainy day in mid-December, the Webbs observed that the bird was finding shelter by perching on the top and bottom brackets of a planter attached to the brick wall under the eaves of their house. The Webbs' house forms a U shape around a deck that varies from 2- 3 m above the ground. The feeder (with heat lamp) was just outside a sunroom on the deck. Beyond the feeder, at the far end of the deck, opposite and directly visible from the sunroom, was the wall planter. A nearby outdoor electrical outlet allowed the Webbs to provide one more spot of warmth for the bird. The planter contained an ornamental cabbage that had grown toward the light and created a protected area behind it. Mrs. Webb placed a heating pad in a black plastic garbage bag, folding the bag to be flat around the pad. She put the pad behind the cabbage, folded into an L shape with half on the bottom of the planter, and half against the brick wall. She then covered the plastic with sphagnum moss, firmly placed some sticks for perches between the two sides of the heating pad, and plugged in the pad. She left the pad on its lowest setting, hoping the bird would detect the source of warmth before it was really needed. Later, the Webbs added a hummingbird feeder under the eave in the corner of the house near the planter.

On 22 and 23 January, 2000, 3" of snow and ice fell and completely coated all of the trees in the yard. Another ice storm hit on 29 - 30 January. The Webbs' house is on a small mountain, where temperatures are lower and ice coatings last days longer than at lower elevations. For three weeks, temperatures never rose

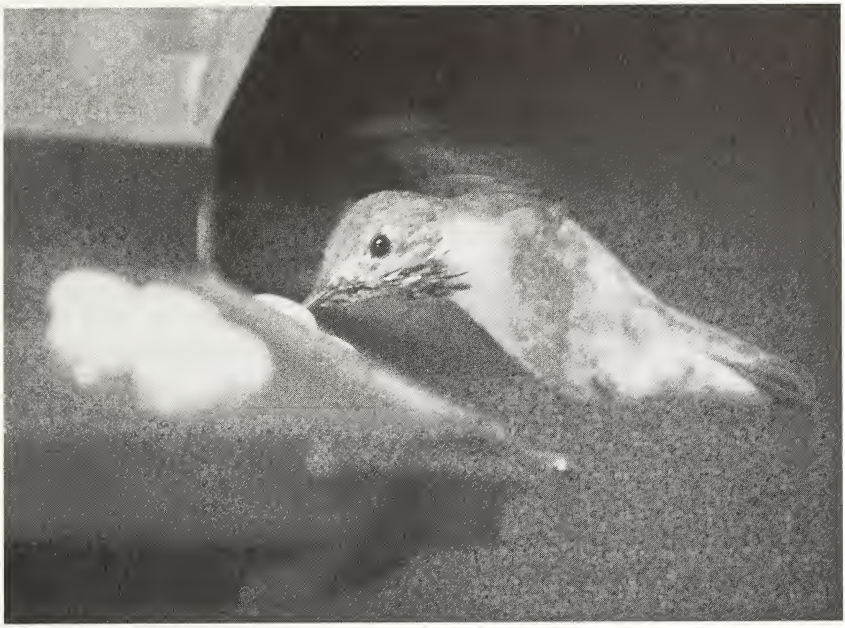

Fig. 2. Immature male Calliope Hummingbird on April 11, 2000, two weeks before its departure. Photo by Charles Webb, MD.

above freezing, and for ten days tree branches were coated with ice. Night temperatures fell to 12° -15° F. The Webbs arose before daylight to warm the sugar water to indoor temperature, then waited in the sunroom for the bird's tiny form to appear in the light of the heat lamp. The Calliope would often perch with his back toward the lamp, appearing to bask in the warmth. For much of this period, he spent all day between the juniper and the primary feeder. For his final feeding of the day, he would frequently move to the corner feeder under the eave, enjoy an extended feeding period, then dive down, disappearing into the heated wall planter.

The Webbs became concerned that the bird was not getting adequate protein. They collected droppings under the feeder on waxed paper, and Dr. Webb checked the samples microscopically. The large number of insect parts reassured the Webbs that the bird was able to glean insects within the juniper, so they never added any supplements to the sugar water. The Webbs offered the bird a sugar:water ratio of 1:4 for most of the winter. On some of the coldest days, they briefly, increased the concentration slightly, but never as much as 1:3.

On 8 February, the last of the snow and ice disappeared from the yard and deck. Days were warmer, and there were extended periods midday when the Calliope did not appear at the feeder. He was always dependable, however, in the mornings and afternoons. His timing adjusted to the extending daylight hours, and he began to show signs of molting. The weather in Greer was erratic, with heavy rains, thunderstorms, hail, and high winds over the next two months. The bird began roosting away from the house on clear nights, and the Webbs were unable to discover where he roosted when he flew away after his final feeding. He consistently spent stormy, rainy, or windy nights, however, in the wall planter.

As his molting accelerated, the bird spent more nights in the planter. By the end of February, he had lost so many feathers that the Webbs could not imagine how he could fly at all. By the end of March, his back was brilliant, with bluish-emerald new feathers and new wing feathers that did not yet reach the tip of the tail. He showed little gorget development, however.

By early April, daytime temperatures ranged from the 70's to 80's, nights in the 40's and 50's. Now the Calliope only rarely roosted away from the wall planter, regardless of the weather. The Webbs speculate that he was preserving body fat for his upcoming migration. He was absent for extended periods during the day, but he always returned within an hour or two before dusk. Gorget development accelerated suddenly, with the white becoming astonishingly brilliant and rose streaking through the white.

On 10 April, at 7:25 PM, the Calliope was perched and feeding when a rocketing Ruby-throated Hummingbird knocked him off his previously uncontested perch on one of the feeders. The Ruby-throat appeared to have the upper hand for a time and began using at the feeder in the corner. The Calliope made a level attack to the Ruby-throat's back, and the new arrival fled. The Calliope then fed with his back to the protected corner (a new position for him) and dropped into the heated planter for the night. Over the next few days other Ruby-throats arrived. The Webbs put more feeders out, and although there were some battles, feeding was mostly done in alternating sessions. The weather was particularly unsettled. Finally, on 15 April, a front was moving out late in the day. The Calliope arrived at 8 PM for his final feeding for the day, then went to the planter. On Sunday morning, he apparently left before the Webbs got up. Fog was burning off to a clear day, and a large region of high pressure covered the South. The night was moonlit. The Calliope and the Ruby-throats all apparently took advantage of the good traveling weather, and for the first time in 19 weeks, no hummingbirds were at the feeders.

The Sargents feel that there is a slight chance that the Calliope will return for the winter of 2000-2001. The Sargents also feel that the sources of warmth were not significantly important and that the bird could have survived merely with an unfrozen source of sugar water, and perhaps even without that. The Webbs noted, however, that during the three weeks of icy weather many other birds had availed themselves of the warmth of the heat lamp.

The Webbs are not avid birders, only people who avidly feed birds. They found their experience with the Sargents to have been memorable and their intimate contact with what they describe as a "fragile jewel of life" to have been humbling. This year, like many others throughout the Carolinas are beginning to do, they will leave their hummingbird feeders up even after the end of October.

If accepted by the South Carolina Bird Records Committee, this will be the first record of Calliope Hummingbird for South Carolina. Chairman Lex Glover does not expect much debate regarding this bird, but the Committee's backlog will prevent a decision for an indefinite time.

Photograph of Black-bellied and White-faced Whistling-Ducks from North Carolina, With Comments on Other Extralimital Waterfowl

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The staff of the Pine Island Hunt Club, a sanctuary of the National Audubon Society, provided me with a photograph of a Black-bellied Whistling-Duck (*Dendrocygna autumnalis*) and White-faced Whistling-Duck (*D. viduata*) taken in April 1998 on their property near Duck, Currituck County, North Carolina. The birds were free-flying, apparently traveling together, and remained in the vicinity of the club's waterfowl feeding area for several days. This photograph constitutes the second North Carolina State Museum record for a Black-bellied Whistling-Duck and the first of a White-faced Whistling-Duck from the state (NCSM photo collection No. 556). The origin of these ducks is unknown, but the long-range dispersal of waterfowl in the genus *Dendrocygna*, in particular, is well documented. Although the records reported herein have not been reviewed by the North Carolina Bird Records Committee, the origin of these birds, rather than their identification, is the issue.

The Black-bellied Whistling-Duck ranges through much of northern and eastern South America and most of Middle America north to southern Arizona, central and southeastern Texas, and southwestern Louisiana. This duck occurs casually in the Greater Antilles, the Lesser Antilles, and the Bahamas (A.O.U. 1998). There is a recent unpublished photograph from the Bahamas (27 September 1998, Hog Cay, Long Island; A. White, pers. comm.). The species has become well established in Cuba (Raffaele *et al.* 1998) and central and southern Florida (Roberson and Woolfenden 1992; Field Notes 52:49-50).

The only other North Carolina State Museum record for this species in North Carolina is of a bird collected by Eugene Pond on 15 February 1968. The specimen was shot in Core Sound, near Stacy, Carteret County (NCSM 2910; Lee 1981). At the time this was one of the few records of this duck from east of the Mississippi, and I then concluded that the individual in question was probably an escaped captive, although the specimen showed no sign of having been in captivity.

Numerous recent records from eastern North America indicate the species is showing up regularly as a naturally occurring vagrant, and it is likely that both this earlier record and the one reported here are of wild birds. The species' increase in occurrence in the East is probably a result of the expanding population in Cuba and Florida. This duck is partly migratory at the northern limits of its range, and the migratory behavior would appear to be responsible for its regular extralimital occurrence. The A.O.U. (1998) recognized reports from the southeastern and central Atlantic states to be those of natural occurrence, and other states in the Southeast are regarding birds encountered as being of wild origin.

The issue in eastern North Carolina is currently clouded because of local waterfowl breeders who raise, among other species, Black-bellied Whistling-Ducks. At least one person has a collection from which the ducks were not pinioned or banded and individuals had escaped. This escape apparently occurred after the April 1998 photograph cited above, but before the finding of a Black-bellied Whistling-Duck in the winter of 1998-99 at Wanchese, Dare County, NC. Because of this escape of waterfowl, both reports should be regarded with suspicion in regard to natural occurrence. This combination of facts available, however, is precisely what needs to be documented regarding the expanding population of free-ranging ducks and escaped captives of this species in the region. Considering the potential long-range movements of escaped captives, geographic proximity of sightings of free-ranging birds and points of escape are not necessarily related.

In this hemisphere the White-faced Whistling-Duck occurs primarily in South America and southern Central America (A.O.U. 1998). It was also recorded as occurring casually in the past from the Greater Antilles and the Lesser Antilles (Hispaniola, Cuba, and Barbados; Raffaele *et al.* 1998). I am aware of only one other report form North America: In 1912 the species was reported from Hackensack, New Jersey (Grinnell 1913). Whether the absence of other reports from North America represents a lack of occurrence, or a lack of reporting because of an assumption that these ducks are escaped captives, is unclear. As in the case of most extralimital records of waterfowl, escaped captives should not be ruled out as the source of this record, but the documented casual northward dispersal of White-faced Whistling-Ducks into the Greater Antilles suggests that the North Carolina bird could be of an individual of wild origin. This species is not recognized as occurring in North America by the A.O.U. (1998), and there is little point in advocating or refuting either North American record as being of a wild bird.

Other problematic species of waterfowl recorded from North Carolina include:

Barnacle Goose (*Branta leucopsis*): There are five historic records from North Carolina (Pearson *et al.* 1959). Two are from Currituck Sound (31 October 1870, 22 November 1992); two are from Pea Island, Dare County (24 November 1925, 6 November 1949); and one is from "Gaddy's Pond," near Ansonville, Anson County (28 December 1950 [original notes of Brimley say 6-13 November 1949, 20 and 28 November 1949, and 3 December 1949, Rhett Chamberlain]). Additionally an individual was present at Pea Island from 7-13 November 1970 (Am. Birds 25:563). Although it is quite likely that some of these reports represent escapes from captivity, there is little doubt that most North American reports represent wild birds that presumably originated in Greenland. Szantyr (1985) has shown that the seasonal timing and peak of occurrence of North American records are consistent with those of migrant and wintering individuals. The A.O.U. (1998) considered many records from the eastern United States to be of natural vagrants.

Baikal Teal (*Anas formosa*): Sykes (1962) provided an account and description (including the photograph of the specimen) of one of these teal killed at the Swan Island Club, in Currituck County, 9 December 1912. He presented reasons why he did not believe the bird to be an escaped individual. The A.O.U. (1998) noted that birds that had been reported from Colorado, Oklahoma, Ohio,

Pennsylvania, New Jersey, North Carolina, and Europe may be escaped individuals.

Green-winged (European) Teal (*Anas crecca crecca*): A specimen of an adult male shot on Currituck Sound on 7 December 1926 is in the Philadelphia Academy of Natural Sciences (Huber 1927). (The nominate taxon is the European race of our Green-winged Teal.) *Anas c. crecca* occurs regularly, although not commonly, on the Outer Banks of North Carolina (see Fussell 1994), and there are many records from elsewhere in the region (New England, Pennsylvania, New York, Virginia, and South Carolina). These individuals are considered to be naturally-occurring migrants (A.O.U. 1931, 1958).

Falcated Duck (*Anas falcata*): Platania (1978) reported a specimen taken from the Davis impoundment in the winter of December 1974-75 (NCSM 4503). The poor health of the bird makes a wild origin seem questionable, and there are few reports of individuals from North America. The A.O.U. (1998) considered birds reported from Virginia, North Carolina, and Europe almost certainly to be escaped captives.

Garganey (*Anas querquedula*): Gustafson (1957) reports a record of this teal from Hatteras, Dare County. At the time of the report it was the first for this hemisphere. It was present from 21 to 31 March 1957 (Chamberlain 1957). The A.O.U. (1998) considered the North Carolina record to be of a naturally occurring bird. This is based largely on a substantial number of regional records (primarily March-April) that have surfaced since the first, and as of early 1999 the only, North Carolina report.

Barrow's Goldeneye (*Bucephala islandica*): Simpson (1971) reviewed the five available records of this species from the state and concluded that three were invalid, one extant specimen lacked supporting details, and the remaining one, while probably valid, was not confirmed with a specimen. In view of this, the interpretation of records of Barrow's Goldeneye from North Carolina regarding the nature of their origin is irrelevant. The A.O.U. (1998), however, considered the western North Carolina report (of Cairns; see Simpson 1971), as well as one from South Carolina to be valid and of wild birds. The A.O.U. Checklist Committee was unaware of Simpson's (1971) review, and the inclusion of the North Carolina record as a wild bird is an oversight (J. V. Remsen, pers. comm.)

Ruddy Shelduck (*Tadorna ferruginea*): One of a flock of five was shot near Waterlily, Currituck County, in 1886, and another flock was seen some years later at the same location (Grinnell 1919). The A.O.U. (1983) considered this report to be erroneous. Eugene Pond (4 December 1967) stated in a letter that Major Couch of Cherry Point has a mounted specimen of one he killed in Hyde County, North Carolina. I have seen photographs of mounts of birds shot in coastal North Carolina in the 1980s, but no specific information as to their source was available. The A.O.U. (1998) placed this duck in an appendix of species with insufficient evidence for inclusion on the North American list, and North American records are considered probable escapes from captivity. It appears that a feral population is becoming established in Montana (Field Notes 52:80)

Common Shelduck (*Tadorna tadorna*): Two males were present from 2 to 5 July 1972 on the North Pond at Pea Island National Wildlife Refuge, Dare County (Am. Birds 26:845). All reports are included in an appendix of species

with insufficient evidence for occurrence in North America by the A.O.U. (1998), which state, "These reports likely pertain to escaped individuals."

Mandarin Duck (*Aix galericulata*): Holmes (1974) reported a drake Mandarin Duck shot on a small pond off the Trent River in Craven County, North Carolina. Holmes believed the bird to be a wild individual. Also one was killed by a duck hunter in Jones County on 7 January 1989 (Chat 54:22). These are the only reports from the state, and it seems highly unlikely that either was a wild bird. North American records are listed in the A.O.U. appendix (1998) as escapes from captivity.

Masked Duck (*Nomonyx dominica*): Carter and Carter (1982) provided a photograph of a Masked Duck from North Carolina. The bird was seen between 20 and 27 February 1982 on Lake Ellis, Craven County. To date it is the only report from the state. Based on other reports from the Southeast, this individual is assumed to be a wild individual. The A.O.U. (1998) considered the few reports from eastern North America to represent wild individuals.

Discussion

Evaluation of specific extralimital waterfowl reports is problematic, and the best approach remains a conservative one that assumes that for all such records escaped captives cannot be eliminated as the source. For several species, however, cumulative evidence compiled over time and from throughout the East and Southeast makes it advisable to have an open mind concerning these decisions. Good cases in point are the Black-bellied Whistling-Duck and the Barnacle Goose, for which records from central and eastern North America are now regarded, due to a pronounced seasonal and geographic pattern of occurrence, as those of wild stocks. Conversely, waterfowl with extralimital occurrences in North Carolina, but which breed elsewhere in North America, have all been considered as valid occurrences of wild birds (*i.e.*, Fulvous Whistling-Duck, *Dendrocygna bicolor*; Ross's Goose, *Chen rossii*; White-fronted Goose, *Chen albifrons*; Cinnamon Teal, *Anas cyanoptera*; Harlequin Duck, *Histrionicus histrionicus*; and Masked Duck. For species that occur in North Carolina but are represented by extralimital races (the Greenland race of White-fronted Goose, *C. a. flavirostris*; Black Brant, *Branta bernicla nigricans*; Hutchinson's Goose, *Branta canadensis hutchinsii*; and Common Teal), the races have been accepted by the ornithological community as natural occurrences, but for the most part these records have been ignored by the birding community. Since our indigenous waterfowl have exhibited major modifications in both breeding and wintering distributions during the last 50 to 100 years as a result of elimination and reintroduction of beavers, and due to the creation of coastal impoundments, farm ponds, and vast Piedmont reservoir systems in the region, it seem likely that many extralimital species likewise respond with changing distributions.

In truth, although many records of vagrant North American waterfowl are regarded to be of free-ranging individuals of wild stocks, any individual could always be of captive origin and thereby suspect. Additionally, there are problems concerning the consideration of evaluation in the strength of specimen and photographic records vs. sight reports. Current opinion on individual records and reports may or may not be correct, and it is difficult to establish consistent criteria for the status of occurrence for individual reports. In nearly every case, bands,

aberrant feather wear, and other indications of captivity have been lacking from reports. In fact, most authors directly state that such signs were not present.

The timing of occurrence compiled from many miscellaneous records for some species shows patterns of migration and wintering consistent with what is known about the species within the core of their ranges. That many of these same species are not being reported from seasons outside these periods, as would be expected if escaped captives were persistently present in the region, likewise suggests occurrence of free-ranging wild birds. The reports briefly summarized herein are good examples of a full spectrum of problematic occurrence of extralimital waterfowl. They range from certainty of escaped individuals to ones for which it would appear from supporting evidence are likely to be of wild origin. The Asian species in particular are ones that seem most likely to be of captive origin. Yet, in view of the number of avian taxa of West Coast and eastern Asian origin now showing up along the Atlantic coast, perhaps it is unwise to dismiss even these as simply escaped captives. The problems of interpretation are more complex than simply sorting out captives from wild free-ranging birds. For several species of waterfowl, feral and partly feral populations are now known that could be the source of, or could contribute to, regional occurrence.

It is interesting that national and state record committees are often willing to accept extralimital occurrence of North America waterfowl as ones of natural occurrence but are less likely to do so with those from other regions or continents. Yet, we have numerous examples of known wild waterfowl occurring well outside their normal range. The best examples come from oceanic islands, where escaped individuals from local sources can be entirely ruled out and long-distance vagrancy documented. Pratt *et al.* (1987) list 33 species of vagrant waterfowl (including two species of whistling-ducks) known to reach Hawaii and other remote tropical Pacific Islands. In Bermuda, 35 species (including two species of whistling-ducks) have been recorded (Amos 1991). Records of wild banded North American waterfowl reaching distant localities also illustrate the ability of individual birds to travel long distances which are unrelated to normal migratory patterns (*i.e.*, a Wood Duck, *Aix sponsa*, banded in Canada before it could fly and found the following December on Saba, Netherlands Antilles; [Titman and Seaman 1978]; and an American Black Duck, *Anas rubripes*, recovered in Korea [1998, J. V. Remsen pers. comm.]). In addition to many species being highly migratory or nomadic, some species of waterfowl move together in family units, imprint on other species, and travel in mixed-species flocks during migration, making them prime candidates for aberrant dispersal. Major weather systems are also capable of long-range displacement, and ducks and geese, because of their size, are more capable than many types of birds to survive such displacements. The dynamic nature of natural waterfowl populations and their migratory behavior makes it as irresponsible to dismiss all records of vagrants as escaped captives as it is to blindly add them to regional lists of naturally occurring fauna.

The latest American Ornithologist's Union Check-list (1998) provides a number of examples of descriptions of waterfowl distributions that suffer from a lack of reported observations. This lack of reporting results from the initial assumption that the birds in question were escaped captives. The issue of birds being of wild origin or if they can be counted on regional, state, or personal bird lists is secondary. The exclusion of them on a list is a reflection of criteria used to

develop such a list and not a lack of potential interest in the bird's occurrence. In some cases it appears that non-indigenous ducks and geese are becoming a part of our fauna, and regardless of their origin, several are becoming, or have the potential to become, increasingly important components of our wetland communities. These waterfowl interact in natural systems, in some cases displacing native species, in all cases competing with them, are the source of many hybrids, and perhaps also represent vectors of disease. They exhibit migratory patterns and variations in occurrence and abundance. For example, the Giant Canada Goose (*Branta canadensis maxima*), a subspecies on the verge of extinction earlier in the 1900s, now has a huge and growing population in the eastern Atlantic states. This population, which is independent of the migratory wintering Canada Geese of the Atlantic flyway, is growing at a rate of 17% a year (USFWS records). Their numbers are so large that they are responsible for the eutrofication of ponds and small lakes in the region. Yet, hardly a single published note concerning this invasion into the region, information on the timing of this population explosion, or its extent, is available. In North Carolina a similar situation exists for Mute Swans (*Cygnus olor*) in that we have almost no information on the invasion and reproduction of this exotic for the state. (The ability of even these swans to disperse is shown by a report from Bermuda [Amos 1991].) Because of this, learning about these birds and reporting this information should continue to be a primary activity of field workers. Observers and editors should be encouraged to report and publish extralimital records of problematic species and recognize the documentation of exotics to be an important contribution to our understanding of changes within regional avian communities.

Reporting of such records was a former policy of the CBC Bird Records Committee, and the guidelines outlined at that time seem to be sound (Chat 38:70). Field reports should be published independently of decisions of national or state records committees, and observers should not feel slighted if these records remain unaccepted. At the same time records committees should continue to make conservative decisions regarding these reports. It can be anticipated that decisions of committees will vacillate over time as more information becomes available. This process is a natural and healthy one, and, as has been documented for several species, the growing body of regional literature occasionally puts old reports in a new light, making it fundamental for these reports to be available for future evaluation.

Acknowledgments

I thank Jeff Davenport of the staff of the Pine Island Hunt Club for making the photograph available. Herb Hendrickson and J. Van Remsen reviewed the manuscript.

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Originally submitted January 1999.

BRIEFS FOR THE FILES

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All Dates Winter 1999-2000

Briefs for the Files is a seasonal collection of uncommon-to-rare or unusual North and South Carolina bird sightings and events which do not necessarily require a more detailed Field Note or article. Reports of your sightings are due the 20th of the month after the end of the previous season.

Winter = December 1 - February 28, due March 20

Spring = March 1 - May 31, due June 20

Summer = June 1 - July 31, due August 20

Fall = August 1 - November 30, due December 20

Reports can be submitted in any format, but I prefer that you type them and list the sightings according to the birds in checklist order (not according to dates or locations). If you submit your report to me through e-mail, please type your report directly into the message or copy it from a word processing program directly into the message. You may also attach your file to the e-mail, but if you do, please let me know the program used and also send a second version saved as a text (.txt) file.

Suitable reports for the Briefs include any sightings you feel are unusual, rare, noteworthy, or just plain interesting to you in any way! It is my responsibility to decide which reports merit inclusion in the Briefs.

Please be sure to include details of any rare or hard-to-identify birds.

I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me as described above.

If I feel that your sighting warrants a Field Note, I will contact either you or the appropriate state General Field Notes editor. You may, of course, submit your Field Note directly to the editor without going through me.

RED-NECKED GREBE: This species is always noteworthy in the Carolinas. This winter singles were found at Charleston, SC, Dec. 28 (*fide* Ed Blitch), Ft. Fisher, NC, Jan. 6 (John Brunjes), and C. Hatteras, NC, Feb. 21 (Wayne Irvin and Phil Crutchfield).

EARED GREBE: The Eared Grebe is an annual winter visitor, though quite local in its distribution. This winter's reports included up to three in Wayne County, NC, through the winter (Eric Dean), one at C. Hatteras, NC, Dec. 27 (Harry LeGrand) and three there Feb. 13 (Marcia Lyons, Pat Moore, *et al.*), one at Jordan

Lake, NC, Feb. 29 (Doug Shadwick), and a peak of 17 at the Savannah Spoil Site, Jasper County, SC, Dec. 17 (Steve Calver).

NORTHERN FULMAR: Two pelagic trips out of Hatteras, NC, provided the only sightings with 11 on Feb. 5 and 120 on Feb. 20 (Brian Patteson *et al.*).

AMERICAN WHITE PELICAN: Only one was reported from North Carolina this winter, that being in the river at Ft. Fisher, NC, Jan. 5, as noted by Greg Massey.

ANHINGA: This species is rare in North Carolina in winter, although there has been an increase in sightings the last couple of years. Singles were on the L. Mattamuskeet CBC Dec. 29 (Harry LeGrand), the Greenville CBC Jan. 2 (*fide* John Wright), and at New Bern Jan. 14 (John Daughtry).

AMERICAN BITTERN: One was locally rare and unusual in the mountains at Ecusta, Transylvania County, NC, Dec. 22 (*fide* Norma Siebenheller).

REDDISH EGRET: One remained from the fall season at Huntington Beach State Park, SC, until at least Dec. 30 (*fide* Jack Peachey).

GREEN HERON: The number of winter reports of Green Heron was higher than normal this year. All in North Carolina, two were on the C. Hatteras CBC, Dec. 27 (*fide* Harry LeGrand), one was near Trenton, Jones County, Jan. 19 (Clancy Ballenger), one was on the Wayne County CBC, Dec. 18 (LeGrand), one was on the Charlotte CBC, Dec. 26 (*fide* Wayne Covington), and one was at Beaver Lake, Asheville, Dec. 2 (Len Pardue).

BLACK-CROWNED NIGHT-HERON: One flying over Silas Creek, Winston-Salem, NC, Dec. 28 (*fide* Ramona Snavely), provided a first local winter record.

YELLOW-CROWNED NIGHT-HERON: This species is very rare in the Carolinas during the winter. Four on the McClellanville, SC, CBC Dec. 22 (*fide* Perry Nugent) were excellent finds. One at Bird Shoal, Beaufort, NC, Dec. 10 & 22 (John Fussell *et al.*) provided a first December county record.

WHITE IBIS: One was locally rare at Wood Lake, Vass County, NC, Feb. 7 (Barbara Gearhart and Susan Campbell) and the 34 on the Santee NWR, SC, CBC Jan. 2 (*fide* Lex Glover) provided a new high number for that count.

GLOSSY IBIS: One was quite rare on the Bodie-Pea Islands, NC, CBC Dec. 28 (*fide* Paul Sykes).

ROSEATE SPOONBILL: One on the Hilton Head, SC, CBC Dec. 18 (*fide* Barry Lowes) was the same individual present since the fall season.

BLACK VULTURE: Locally rare coastal reports for North Carolina included five over Bird Shoal, Beaufort, NC, Feb. 10 (John Fussell and Jack Fennell) and one on Roanoke Island Feb. 27 (Jeff Lewis).

GREATER WHITE-FRONTED GOOSE: Always noteworthy in our area, one was on the Pamlico County, NC, CBC Dec. 21 (*fide* Liz Lathrop), and one was on the Charleston, SC, CBC Dec. 28 (*fide* Ed Blitch).

SNOW GOOSE: Quite unusual for the mountains, four were found in Watauga County, NC, Dec. 30 (Curtis Smalling).

ROSS'S GOOSE: There were three reports of this rare species this winter. One was at Beaufort, NC, Dec. 17-23 (with a Snow Goose!) (John Fussell, sev. obs.); one was on the Pettigrew State Park, NC, CBC Dec. 28 (*fide* Scott Hartley); and one was present in Forsyth County, NC, Dec. 27 (Hop Hopkins, *fide* Ramona Snavely) until at least Jan. 11 (Mary McDavit).

"CACKLING" CANADA GOOSE: An individual of this small race ("*minima*") of Canada Goose was at L. Mattamuskeet, NC, Dec. 12 and Jan. 8, as noted by Brad Carlson.

BRANT: Two on the Southport, NC, CBC Jan. 2 (Ricky Davis) were locally rare. This species is not often found away from the usual Pamlico Sound wintering areas.

TUNDRA SWAN: This species continues to increase in the Carolinas, with more being found at scattered inland sites and numbers increasing at the usual areas. This year the Bear Island WMA, SC, wintering flock numbered at least 2,000 on Feb. 19 & 26 (Robin Carter and Caroline Eastman), probably a record total for that state.

EURASIAN WIGEON: Not too unusual, one spent the winter at North Pond, Pea Island NWR, NC (m. obs.). Much more noteworthy were the two at Cowans Ford, Charlotte, NC, Jan. 6 (Tom Lorenzin) and the two that wintered on Greenfield Lake, Wilmington, NC (Sam Cooper, sev. obs.).

"EURASIAN" GREEN-WINGED TEAL: This form was picked out of Green-wing flocks twice this winter, with singles at Pee Dee NWR, NC, Dec. 11 (Barbara Gearhart) and L. Mattamuskeet, NC, Dec 29 (Derb Carter and Ricky Davis).

COMMON EIDER: Common Eiders were not reported much this winter. The only ones found included a female at the Huntington Beach State Park, SC, area Dec. 11 (Steve Shultz and Kent Fiala) until at least Dec. 30 (*fide* Jack Peachey), and four in flight at Bald Head Island on the Southport, NC, CBC Jan. 2 (Ricky Davis).

SURF SCOTER: Rare inland winter sightings included two on L. Julian, Buncombe County, NC, Dec. 9 (Dick Blee and Wayne Forsythe), one at Charlotte, NC, Jan. 4 (Judy Walker *et al.*), and one on L. Keowee, SC, Dec. 3 (Steve Patterson).

COMMON MERGANSER: Interesting reports of this merganser involved one on L. Tillery, Montgomery County, NC, Dec. 1 (Grady Goldston), six on the Pamlico County, NC, CBC Dec. 21 (*fide* Liz Lathrop), and two on the L. Mattamuskeet, NC, CBC Dec. 29 (*fide* Allen Bryan).

CAROLINABIRDS

Carolinabirds is an Internet e-mail discussion group about birds and birding in the Carolinas. Subscribers frequently post sightings to it similar to those found in Briefs for the Files, but unusual behavior receives more attention. Subscriptions are free. To subscribe, address an e-mail message to <majordomo@duke.edu>. Don't fill in the subject line. As your message, simply put, "subscribe carolinabirds" (without the quotes). You will receive a confirmation and more information shortly. Submissions for Briefs for the Files should be sent directly to Ricky Davis.

OSPREY: Noteworthy winter reports included one on the C. Hatteras, NC, CBC Dec. 27 (*fide* Harry LeGrand) and one inland on the S. Lake Norman, NC, CBC Dec. 19 (*fide* Taylor Piephoff).

ROUGH-LEGGED HAWK: This species turned up in North Carolina at several areas this winter. In the mountains, one was at Grassy Creek, Ashe County, Dec. 27, and another (or possibly the same) individual was on Pond Mt., Ashe County, Feb. 27 (*fide* James Coman). One was a surprise at Coddle Creek Res. near Charlotte Jan. 6-7 (Tom Lorenzin, Danny Swicegood). And near the coast, Alligator River NWR, Dare County, hosted a light-phase adult all winter (Eric Dean, m. obs.) and a second, darker, individual off and on during January and February (Eric Dean *et al.*, John & Paula Wright *et al.*, sev. obs.).

GOLDEN EAGLE: One was very rare for South Carolina at South Island, Dec. 3 (Van Atkins *et al.*). And in North Carolina, Alligator River NWR hosted an immature Jan. 16 and a sub-adult Feb. 19 (John & Paula Wright *et al.*). Having two separate Goldens in one area anywhere in the Carolinas is a rare event indeed.

SANDHILL CRANE: South Carolina had several reports of cranes this winter. The five at Donnelly WMA, present since late fall, remained throughout the winter (Judy Halleron, Pete Worthington, sev. obs.) as did the one at the Myrtle Beach airport (Jack Peachey). Other sightings were up to four near Hemingway, Williamsburg County, late January to early February (*fide* Peachey), one on the Santee CBC Jan. 2 (Lex Glover), and ten in flight over I-26 in Dorchester County Feb. 7 (Dean Edwards *et al.*).

WILSON'S PLOVER: Noteworthy reports of wintering Wilson's Plovers included up to four at Bird Shoal, Beaufort, NC, Dec. 15 & 22 (John Fussell), six at Ft. Fisher on the Southport, NC, CBC Jan. 2 (Fussell and Buddy Garrett), and two on the Charleston, SC, CBC Dec. 28 (*fide* Ed Blitch). This species seems to be wintering farther north the last couple of winters. Will this trend continue?

SPOTTED SANDPIPER: This species was reported this winter in the Carolinas in possibly record numbers. North Carolina sightings included singles on the Wayne County CBC Dec. 18 (John Fussell), at Atlantic Beach Dec. 22 (*fide* Fussell), on the Ocracoke CBC Dec. 31 (*fide* Peter Vankevich), on the Southport CBC Jan. 2 (Harry LeGrand, Taylor Piephoff, *et al.*), and at the Oxford Dam, Catawba County, Jan. 12 (Dwayne & Lori Martin). In South Carolina, one was in the McClellanville area Dec. 22 (*fide* Perry Nugent) and again Feb. 7 (Dean Edwards *et al.*), and one was at Great Falls along the Catawba River Jan. 11 (Stephen Harris).

PECTORAL SANDPIPER: One was late at the Savannah Spoil Site, Jasper County, SC, Dec. 9, as noted by Steve Calver.

DUNLIN: Rare inland in winter, three Dunlin were on the Wayne County, NC, CBC Dec. 18 (John Fussell), and one was on the Long Cane, SC, CBC Dec. 23 (Steve Patterson and Lex Glover).

STILT SANDPIPER: The only known wintering site for this species in the Carolinas is the Savannah Spoil Site, in Jasper County, SC. The peak count there this winter was 27 on Dec. 19, as noted by Steve Calver.

RED PHALAROPE: The only reports involved one near shore just off Masonboro Inlet, NC, on the Wilmington CBC Jan. 1 (Ricky Davis) and a count of 87 on the Hatteras, NC, pelagic trip Feb. 5 (Brian Patteson *et al.*).

GREAT SKUA: This annual, offshore-wintering species was found on both Hatteras, NC, pelagic trips with four birds on Feb. 5 & 20 (Patteson *et al.*).
PARASITIC JAEGER: One seen from the Cedar Island - Ocracoke Ferry in Pamlico Sound, NC, Dec. 26 was somewhat of a surprise away from the ocean waters (John Fussell).
LAUGHING GULL: Three at the Wayne County, NC, landfill Dec. 24 (Eric Dean and Gene Howe) provided a rare inland winter report.
LITTLE GULL: This sought-after gull was located several times, with one off of Salvo, NC, on the Feb. 5 Hatteras pelagic (Brian Patteson *et al.*), three in the Nags Head, NC area Feb. 6 (John & Paula Wright), and two at Avon, NC, Feb. 7 (Patteson).
BLACK-HEADED GULL: One was in the Morehead City, NC, wastewater treatment plant area Jan. 24 until at least Feb. 23 (John Fussell, sev. obs.). Another was in the C. Hatteras, NC, area Feb. 6 (Haven Wiley *et al.*, sev. obs.).
CALIFORNIA GULL: This gull has become expected each year at C. Hatteras, NC. This winter an adult was present Jan. 15 (Brad Carlson) until at least Feb. 19 (Brian Patteson *et al.*) and a 1st-winter immature was there Feb. 9 (Patteson). Others were found elsewhere, including a 2nd-winter immature offshore on the Feb. 20 Hatteras pelagic (Patteson *et al.*) and an adult at Oregon Inlet, NC, Jan. 9 (Eric Dean).
THAYER'S GULL: The only report was of a 1st-winter immature at C. Hatteras, NC, Feb. 9, as noted by Brian Patteson.
ICELAND GULL: In North Carolina, up to three were in the C. Hatteras area all winter (m. obs.), and two were found offshore on the Feb. 5 Hatteras pelagic (Patteson *et al.*). In South Carolina, where decidedly much rarer, one was at the Horry County landfill Feb. 19 (Chris Hill, Jack Peachey, *et al.*), and another or the same was on the beach at Myrtle Beach Feb. 25 (Bruce Hallett).
LESSER BLACK-BACKED GULL: This species continues to increase its numbers in our area. Excellent counts this winter included 27 on the C. Hatteras, NC, CBC Dec. 27 (*fide* Harry LeGrand), an impressive 75 along the beach from C. Hatteras point to Frisco in mid-January (Brian Patteson), and eight inland at the Wayne County, NC, landfill Dec. 24 (Eric Dean and Gene Howe).
GLAUCOUS GULL: Apart from the usual C. Hatteras, NC, area birds, noteworthy sightings elsewhere included one at Ft. Fisher, NC, Dec. 4 (John Brunjes) until at least Jan. 2 (John Fussell and Buddy Garrett), one at Huntington Beach State Park, SC, Feb. 6 (Mary Douglass), and another or the same was at the Horry County, SC, landfill Feb. 17 (Jack Peachey and Gary Phillips).
GREAT BLACK-BACKED GULL: This species is also increasing, especially as an inland winter visitor. Excellent counts included 40 at the Wayne County, NC, landfill Dec. 24 (Eric Dean and Gene Howe), two at Falls Lake, NC, Jan. 1 (*fide* Brian Bockhahn), and nine at Greenville, NC, Jan. 2 (*fide* John Wright).
"HYBRID GULLS" The C. Hatteras, NC, area (on the beach and offshore) usually has several individuals of hybrid gulls each winter. This year some of the suspected forms included 3-5 Nelson's (Glaucous/Herring), up to two Herring/Lesser, and one Herring/Greater, all Feb. 19 at the point and Feb. 20 offshore (Patteson *et al.*).

BLACK-LEGGED KITTIWAKE: Land-based sightings included one on the Wilmington, NC, CBC Jan. 1 (Ricky Davis), one at Wrightsville Beach, NC, Feb. 26 (Logan Williams), and one at C. Hatteras, NC, Feb. 18-19 (Wayne Irvin, Mike Tove and Jeff Pippen). The Hatteras, NC, pelagics turned up 10 on Feb. 5 and two on Feb. 20 (Patteson *et al.*).

CASPIAN TERN: One inland at Santee NWR, SC, on Feb. 15 (Lex Glover and Steve Lohr) was most unusual in that winter reports are almost unheard of and spring migrants usually show up in April!

RAZORBILL: The only land-based sighting was of one off Bodie Island on the CBC Dec. 28 (Matt Sharpe *et al.*). The Hatteras, NC, pelagics produced four on Feb. 5 and an impressive 540 on Feb. 20 (Brian Patteson *et al.*).

EURASIAN COLLARED-DOVE: The colony at Beaufort, NC, continues to thrive, as evidenced by the count of 19 there on the Morehead City CBC, Dec. 19 (Eric Dean and Gene Howe). Also three were at N. Topsail Beach, NC, in January (Jamie Cameron). One wonders if these were hurricane survivors or new transplants!

WHITE-WINGED DOVE: One was at an Atlantic, Carteret County, NC, feeder until at least Dec. 8 (*fide* John Fussell), for the only report.

LONG-EARED OWL: There were three reports of this very rare and elusive owl this winter. Singles were on the Charleston, SC, CBC Dec. 28 (*fide* Ed Blitch), at Simpsonville, SC, Dec. 29 (Pete Worthington), and on the Greenville, NC, CBC Jan. 2 (*fide* John Wright).

SHORT-EARED OWL: Up to three were present at Hooper Lane, Henderson County, NC, during January and February (Wayne Forsythe, Tom Joyce, sev. obs.) for a locally rare occurrence.

SAW-WHET OWL: Reports of this species were widespread this winter. Some of the better sightings included up to three along Mashoes Road, Dare County, NC, Dec. 16-17 (Jeff Lewis), one picked up injured, but later released, at Morehead City, NC, Dec. 9 (*fide* John Fussell), one netted at James Island, SC, Dec. 3 (Will Post), one heard at Santee NWR, SC, Jan. 22 (Tim Kalbach), and several netted at York, SC, in early December (Bill Hilton). In the mountains, reports were of one on the Stone Mt., NC, CBC Jan. 1 (Jim Keighton and James Coman), one in a yard in Boone, NC, Jan. 23 (Curtis Smalling), and one in Waynesville, NC, Feb. 7 (Don Hendershot).

WHIP-POOR-WILL: Small numbers of this species winter along the coast each year but often go undetected. This year singles were reported on the Litchfield-Pawley's Island, SC, CBC Dec. 30 (*fide* Jack Peachey), on the Wilmington, NC, CBC Jan. 1 (Greg Massey), and at Marshallberg, Carteret County, NC, Jan. 21 (*fide* John Fussell).

RUBY-THROATED HUMMINGBIRD: This species once again wintered in good numbers. The best reports were 14 on the Morehead City, NC, CBC Dec. 19 (*fide* John Fussell) and 11 on the C. Hatteras, NC, CBC Dec. 27 (*fide* Harry LeGrand).

ASH-THROATED FLYCATCHER: Following the fall season's two reports, one was at the north end of Pea Island, NC, Dec. 12 (John & Paula Wright *et al.*, Jeff Lewis, Keith Watson), providing about the 5th report for that state. Three Ash-throateds in the state in one year is just amazing. One wonders if they were found in other eastern states during this time period as well.

GREAT CRESTED FLYCATCHER: Very rare winter (late fall) reports included one heard calling at Roanoke Island, NC, Dec. 5 (Jeff Lewis) and one on the McClellanville, SC, CBC Dec. 22 (*fide* Perry Nugent).
NORTHERN RAVEN: One was locally unusual at Tryon, NC, Feb. 25, as noted by Simon Thompson.
HORNED LARK: Six in a flock of pipits were considered locally rare along Cascade Lake Road, Transylvania County, NC, Jan. 15 (*fide* Norma Siebenheller).
CAVE SWALLOW: The fall influx of Cave Swallows into the East continued into December in North Carolina. That state's 6th record involved a specimen (now at the NC State Museum) found at Morehead City in early December (*fide* John Gerwin). Also another was seen for one day only at Troutman, Iredell County, Dec. 20 (Dwayne & Lori Martin, Dom & Emma D'Ostilio), providing the 7th report for the state.
BLUE-GRAY GNATCATCHER: Two on the Jordan Lake, NC, CBC Jan. 2 (*fide* Will Cook) were quite rare for that inland locality in winter.
GRAY CATBIRD: Quite rare away from the coast in winter, Catbirds were found at Beaver Lake, Asheville, NC, Dec. 2-5 (Len Pardue), on the Spartanburg, SC, CBC Dec. 30 (*fide* Lyle Campbell), and in northern Edgecombe County, NC, the entire winter (Ricky Davis).
AMERICAN PIPIT: There were several reports of huge numbers of pipits this winter. The Santee NWR, SC, CBC had an impressive total of 717 Jan. 2 (*fide* Lex Glover); and the 550 seen flying along the beach at N. Topsail Island, NC, Jan. 25 (Jamie Cameron) were no doubt being stressed by the snowy conditions in the eastern part of the state.
NASHVILLE WARBLER: One on the Wilmington, NC, CBC Jan. 1 (*fide* Sam Cooper) provided the only report this season. The Nashville is one of the rarest of the wintering warblers in our area.
NORTHERN PARULA: Very rare in winter, this species was found twice. One was on the Savannah River Site, SC, CBC Dec. 16 (*fide* Carol Eldridge), and one was on the L. Mattamuskeet, NC, CBC Dec. 29 (Harry LeGrand).
YELLOW WARBLER: Very rare anywhere in winter, one was a good find on the Spartanburg, SC, CBC Dec. 30 (*fide* Lyle Campbell).
CAPE MAY WARBLER: One was at Bald Head Island on the Southport, NC, CBC Jan. 2 (Ricky Davis), and another was found to the north at Ft. Fisher Jan. 5 (Greg Massey). This is possibly the first time that two individuals of this species have been found so close during the winter in the Carolinas.
"AUDUBON'S" WARBLER: Always exciting in our area, one was found at L. Mattamuskeet, NC, Jan. 15 (Doug Shadwick). One wonders just how many of these western forms are overlooked among the hordes of "Myrtles" each season.
BLACK-THROATED GREEN WARBLER: There are only a couple of previous sightings of this warbler during the winter. This year, amazingly, there were two reported. One was on the Wayne County, NC, CBC Dec. 18 (John Fussell) and one was at Ft. Fisher on the Southport, NC, CBC Jan. 2 (John Brunjes).
YELLOW-THROATED WARBLER: Yellow-throateds were reported more than usual, with one on the Morehead City, NC, CBC Dec. 19 (Harry LeGrand),

three on the McClellanville, SC, CBC Dec. 22 (*fide* Perry Nugent), and one at Myrtle Beach, SC, Dec. 27 (Phil & Sharon Turner).

BLACK-AND-WHITE WARBLER: Another species that wintered in higher than normal numbers was the Black-and-White. Some of the more interesting reports included one at Clemson, SC, Feb. 1 (Sidney Gauthreaux), one on the Raleigh, NC, CBC Dec. 18 (Will Cook *et al.*), seven(!) on the Santee NWR, SC, CBC Jan. 2 (*fide* Lex Glover), three on the C. Hatteras, NC, CBC Dec. 27 (*fide* Harry LeGrand), and two on the L. Mattamuskeet, NC, CBC Dec. 29 (*fide* Allen Bryan).

WILSON'S WARBLER: There are normally a couple of reports of wintering Wilson's in the Carolinas each year. This season, though, there were at least six! One remained from the fall until at least Jan. 17 at a feeder in Forsyth County, NC, (*fide* Ramona Snavely); one was on the Wayne County, NC, CBC Dec. 18 (Harry LeGrand); one was on the New Bern, NC, CBC Dec. 20 (*fide* Bob Holmes); another was on the Southport, NC, CBC Jan. 2 (John Brunjes); and one was in Raleigh, NC Jan. 23-24 (John Connors). In South Carolina one was found at Pendleton Jan. 27 (Luanne & Buren Blankenship, Sidney Gauthreaux, Carroll Belser).

YELLOW-BREASTED CHAT: North Carolina hosted at least three chats this winter. One was found sick (later died) at Charlotte Dec. 5 (*fide* John Gerwin), one was at Pea Island NWR Dec. 27-28 (Wayne Irvin), and two were on the L. Mattamuskeet CBC Dec. 29 (*fide* Allen Bryan).

CLAY-COLORED SPARROW: This species is one of the rarest wintering sparrows in our area. This year two were found, with one on the Morehead City, NC, CBC Dec. 19 (Ricky Davis) and one on the Greenville, NC, CBC Jan. 2 (*fide* John Wright).

VESPER SPARROW: The Santee NWR, SC, CBC Jan. 2 had a total of 102 reported (*fide* Lex Glover). This is a very impressive count for a species that has been declining as a winter resident for many years now.

GRASSHOPPER SPARROW: Always good finds during the winter, Grasshopper Sparrows were located several times. Three were at Sandhills NWR, SC, Dec. 18 (Dwayne & Lori Martin *et al.*), two were on the Clemson, SC, CBC Dec. 18 (*fide* David Mizrahi), one was near Walterboro, SC, Dec. 22 & 26 (Mike Turner, Robin Carter and Caroline Eastman), and one was on the Wilmington, NC, CBC Jan. 1 (*fide* Sam Cooper).

Instructions for Authors

www.carolinabirdclub.org/thechat.html

HENSLOW'S SPARROW: This rare and elusive wintering sparrow was found in better than average numbers this year. Up to six were near Walterboro, SC, in late December (Mike Turner), and up to two were at Santee NWR, SC, from Jan. 2 (*fide* Lex Glover) until at least Feb. 22 (Tim Kalbach and Mark Dolan).

LeCONTE'S SPARROW: Numbers of this normally rare and elusive species were truly amazing this winter. The highest counts included an almost unbelievable 36 on the Santee NWR, SC, CBC Jan. 2 (*fide* Lex Glover), ten on the New Bern, NC, CBC Dec. 20 (*fide* Bob Holmes), up to seven in northern Mecklenburg County, NC, Feb. 19 (Simon Thompson *et al.*), and four in eastern Richland County, SC, Feb. 26 (Tim Kalbach). Other reports involved three at the Savannah Spoil Site, SC, Dec. 19 (Steve Calver), three at the Broad River WMA, SC, Feb. 19 (Kalbach), two at Radio Island, Beaufort, NC, Dec. 8-24 (John Fussell, sev obs.), two on the Southport, NC, CBC Jan. 2 (Sam Cooper), one on the Wayne County, NC, CBC Dec. 18 (Patricia Tyndall), and one near Walterboro, SC, Dec. 22 (Mike Turner).

LINCOLN'S SPARROW: As usual, this species was found at scattered localities this winter. The best reports included one in the mountains at Beaver Lake, Asheville, NC, Feb. 7 (Don Hendershot), one on the Raven Rock State Park, NC, CBC Dec. 18 (*fide* Paul Hart), and one on the Columbia, SC, CBC Dec. 18 (Caroline Eastman).

LAPLAND LONGSPUR: Only two areas were found to have longspurs this winter. Hooper Lane in Henderson County, NC, had longspurs from Dec. 19 until Feb. 28 (Wayne Forsythe, Simon Thompson), with the peak count being a very respectable 15 on Jan. 31 (Forsythe). And five were locally rare and good finds at Ft. Bragg, Hoke County, NC, Dec. 17, as noted by Phil Crutchfield *et al.*

SNOW BUNTING: North Carolina had most of the Snow Bunting action as usual. In that state, reports included an impressive count of 37 at C. Hatteras Dec. 20 (Jon Altman), 11 at Ft. Fisher Dec. 4 (John Brunjes), four on Bird Shoal, Beaufort, Dec. 10 (John Fussell *et al.*), and one on the Bodie-Pea Islands CBC Dec. 28 (*fide* Paul Sykes). In South Carolina one was a surprise inland at Ebenezer Landing on L. Wylie Dec. 18 until at least Jan. 8 (Robin Carter and Caroline Eastman, sev. obs.).

ROSE-BREASTED GROSBEAK: A male was at a feeder in Little River, Transylvania County, NC, Feb. 12 (*fide* Norma Siebenheller), providing a very rare winter sighting.

DICKCISSEL: The only reports of this species involved singles at Myrtle Beach, SC, Dec. 30 - Jan. 2 (Phil and Sharon Turner, sev. obs.) and Santee NWR, SC, Feb. 6 (Tim Kalbach).

BOBOLINK: One found at Bear Island WMA, SC, Jan. 28 (Pete Worthington), provided an almost unheard-of winter sighting. Was this bird present all winter or possibly a very early spring migrant?

RUSTY BLACKBIRD: This blackbird was found in larger than normal numbers during the winter. Some of the best totals reported included 350 on the Durham, NC, CBC Dec. 19 (Will Cook), 258 on the Raven Rock State Park, NC, CBC Dec. 18 (*fide* Paul Hart), and 154 on the Southport, NC, CBC Jan. 2 (*fide* Ricky Davis).

BREWER'S BLACKBIRD: Reports of this very localized species included three on the Savannah River Site, SC, CBC Dec. 16 (*fide* Carol Eldridge), 22 at Santee NWR, SC, Jan. 22 (Tim Kalbach), and 108 near Gary, Newberry County, SC, Feb. 19 (Lex Glover). The latter sighting provided one of the highest counts ever for the Carolinas.

RED CROSSBILL: Red Crossbills were reported considerably more than usual this winter. Jordan Lake, NC, had two groups with 20 south of Ebenezer Point Jan. 2 (Will Cook *et al.*, sev. obs.) and 16 along Big Woods Road Jan. 9 (Ron Silverman *et al.*, sev. obs.). Three were in Hendersonville, NC, Jan. 31 (Simon Thompson), one was on the Southport, NC, CBC Jan. 2 (Greg Massey), one was on the New River, NC, CBC Dec. 27 (*fide* James Coman), and one was at Table Rock State Park, SC, Feb. 8 (Scott Stegenga). Also up to 35 were in the usual Burrell's Ford, SC, area Jan. 8 (Giff Beaton *et al.*).

COMMON REDPOLL: This rare winter visitor was reported several times this winter, although all were frustrating one-day wonders. One was at a Meat Camp, Watauga County, NC, feeder Jan. 31 (Jason Bulluck and Chris Wilson); one-to-three were reported in the Boone - Blowing Rock, NC, area in January and February (*fide* Curtis Smalling); one was at Clemmons, Forsyth County, NC, Jan. 8 (*fide* Ramona Snavely); possibly two different ones were in Durham, NC, Feb. 19-20 (*fide* Will Cook), and one was at a feeder in Columbia, SC, Feb. 21 (Jerry Griggs).

CBC Rare Bird Alert
(704) 332-BIRD

CAROLINA BIRD CLUB

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The Carolina Bird Club, Inc. is a non-profit educational and scientific association founded in 1937. Membership is open to those interested in the study and conservation of wildlife, particularly birds. Dues, contributions, and bequests to the Club may be deductible from state and federal income and estate taxes. Checks should be made payable to Carolina Bird Club, Inc. and sent to CBC Headquarters, 11 West Jones Street, Raleigh, NC 27601-1029.

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The Chat

(USPS 101-020)

Quarterly Bulletin of Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas
11 West Jones Street, Raleigh, NC 27601-1029

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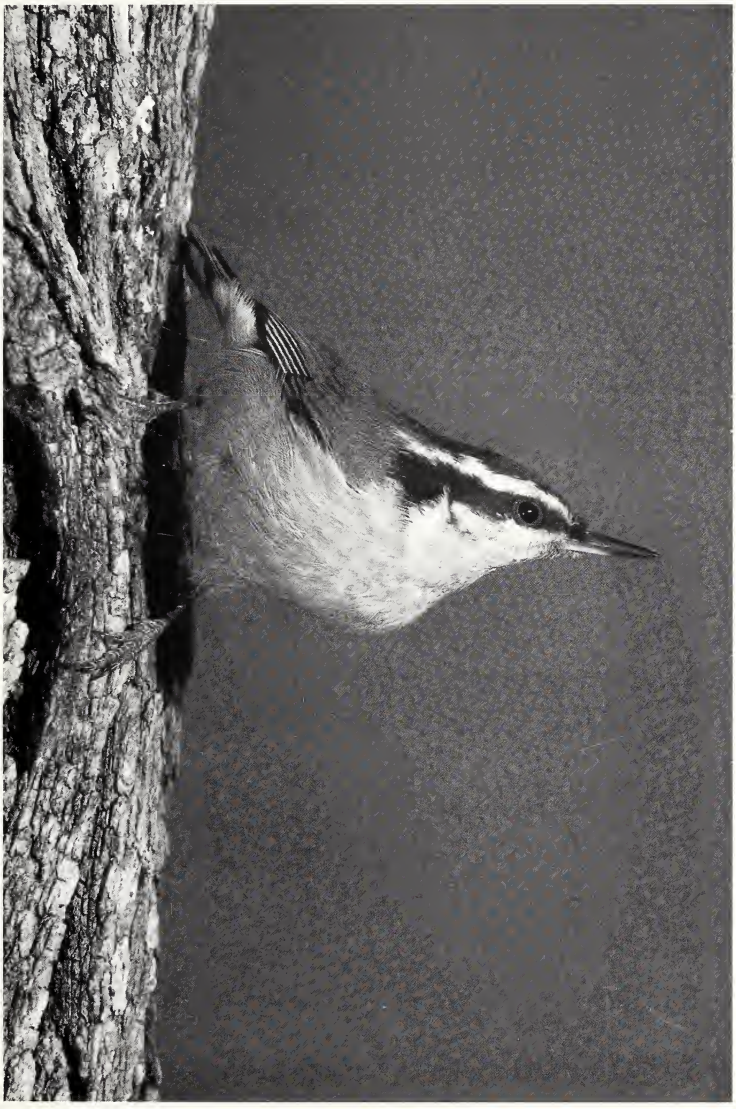
The Chat

Vol. 64 FALL 2000 No. 4



The Quarterly Bulletin of the Carolina Bird Club, Inc.
The Ornithological Society of the Carolinas

THE CHAT

(USPS 101-020)

Vol. 64 FALL 2000 No. 4

Published by The Carolina Bird Club, Inc.

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THE CHAT is published quarterly for $20.00 by the Carolina Bird Club, Inc., with headquarters at the North Carolina State Museum of Natural Sciences, 11 West Jones Street, Raleigh, NC 27601-1029. Second-class postage paid at Raleigh, NC. POSTMASTER: Send address changes to The Carolina Bird Club, THE CHAT, 11 West Jones Street, Raleigh, NC 27601-1029.

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1999 Spring North American Migration Count in South Carolina

Donna S. Bailey
176 Raven's Place
Winnsboro, SC 29180

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The Spring 1999 North American Migration Count was conducted on 8 May 1999. 185 observers in 16 counties divided into 98 parties in South Carolina found 40,732 individuals in 229 species on this relatively mild and pleasant day. Of this total, 30 species were "exclusives," found only in one county. The exclusives break down as follows:

Aiken: 1
Charleston: 7
Cherokee: 1
Colleton: 1
Georgetown: 3
Hampton: 1
Jasper: 4
Lexington: 1
Oconee: 7
Spartanburg: 4

Aiken County (Aike): 97 species, 1650 individuals. Reported temperatures: 59 ° F to 84° F.

Participants: Coordinator Anne Waters, 1621 Apple Valley Drive, Augusta, GA 30906. 706/793-2788. John Austin, Paula Austin, Carol Eldridge, Christine Huzella, Paul Koehler, Richard Lux, Sandra Johnson, Betsy Ristroph.

Aiken County's exclusive was a nice find – a Tennessee Warbler, not always easy to find in South Carolina, particularly during spring migration.

Calhoun County (Calh): 76 species, 3072 individuals. Reported temperatures: 60° F to 82° F.

Participants: Coordinator Robin Carter, 4165 E. Buchanan Drive, Columbia, SC 29206. 803/782-8820. Dennis Forsythe, Donna Forsythe, Jack Stewart, Lula Stewart.

Calhoun County turned in a remarkable count of 2000 Bobolinks and 2 Mottled Ducks, both good finds for this county.

Charleston County (Char): 179 species, 14917 individuals. Reported temperatures: 60° F to 87° F.

Participants: Coordinator Perry Nugent, 2260 Dallerton Circle, Charleston, SC 29414. 843/556-3841. Edward Conradi, Frank Clark, Dilys Clark, Janine Fanning, Sue Brownlee, Irvin Rosenfield, Bonnie Hartnet, Edward Crawford, Charles Walters, Carol Sloan, Joseph Stevenot, Martha Stevenot, Betty Zimmerman, Jack Clarksen, Ernie Prupis, Joan Hylander, Joan Cole, Ann Kent, Craig Watson, Ben Smith, Gifford Beaton, Van Atkins, Liz Smylie, Mrs. M. A. Aldenderfer, Jennifer Koches, Dr. Julian Harrison, Larry Hartis.

Among Charleston's exclusives were American Bittern, Merlin, Virginia Rail, White-rumped Sandpiper, Gull-billed Tern, and Seaside Sparrow.

Cherokee County (Cher): 91 species, 1490 individuals. Reported temperatures: 58° F to 77° F.

Participants: Coordinator Lyle Campbell, 126 Greengate Lane, Spartanburg, SC 29307. 864/585-1228. John Barry, Claude Cobb, Ken Garrett, Karla Lavender, Alan Rose, Marjorie Steadman, Vivian Vassy, Ed Wilde, Travis Childers.

Among the migrating warblers in Cherokee's totals were a Yellow Warbler, a Bay-breasted Warbler, and two Blackpoll Warblers.

Chester County (Ches): 67 species, 3117 individuals. Reported temperatures: 48° F to 73° F.

Participants: Coordinator Albert E. Conway, 1672 Deer Run Road, Catawba, SC 29704. 803/329-3759. Gail B. Ice, Faye Metzl.

Chester had an excellent count of Cliff Swallows, reporting 2800 individuals, as well as one of the few Sharp-shinned Hawks reported for this Spring Count.

Clarendon County (Clar): 71 species, 605 individuals. Reported temperatures: 68° F to 76° F.

Participants: Coordinator Tim Kalbach, 3113 River Drive, Columbia, SC 29201. 803/254-5187.

Melanie Kalbach, Gary Sowell, Nancy Lyman.

Clarendon reported two lingering Pied-billed Grebes and seven Caspian Terns, a good find for this inland county.

Fairfield County (Fair): 102 species, 731 individuals. Reported temperatures: 55° F to 82° F.

Participants: Coordinator Donna S. Bailey, 176 Raven's Place, Winnsboro, SC 29180. 803/635-7032. Buddy Bailey, Molly Bonnell, Kathleen O'Grady, Elise Schmidt.

Migrant warblers in Fairfield County included Swainson's Warbler (transient through Fairfield County and hard to find there) and Blackburnian Warbler.

Georgetown County (Geor): 118 species, 2323 individuals. Reported temperatures: 63° F to 86° F.

Participants: Coordinator Jack Peachey, 103 Walnut Circle, Conway, SC 29520. 843/347-5810. Davia Donmoyer, Charles Heacock, Barbara Maxwell, Bob Maxwell, Paul Rogers, Tonya Spires, Bengie Williams, Carol Williams, Patrick Williams.

Exclusives in Georgetown County included Purple Sandpiper, Sandwich Tern, and a well-described Warbling Vireo.

Hampton County (Hamp): 79 species, 774 individuals. Reported temperatures: 64° F to 87° F.

Participants: Coordinator Carroll Richard, P.O. Box 893, Hampton, SC 29924. 803/943-4661. Bob Richard.

Hampton county's exclusive was a lingering Lesser Scaup. Hampton County also reported excellent numbers of Bald Eagle (14) and White Ibis (118).

Jasper County (Jasp): 118 species, 6728 individuals. Reported temperatures: 70° F to 80° F.

Participants: Coordinator Patricia E. Metz, Parkway Business Center, Suite 1000, Business Center Drive, Savannah, GA 31405. 912/652-4415 ext. 103. Vic Carpenter, Libby Cluett, Mark Cluett, Les Davenport, Daoud Hinkle, Barry Lowes, Philomena Lowes, Alec McClelland, Carol McClelland, John Metz, Ray Porter, Lauree SanJuan, John Stafford.

Exclusive to Jasper County was American Avocet, Fulvous Whistling Duck, lingering Northern Shoveler, and Bonaparte's Gull.

Lexington County (Lexi): 85 species, 828 individuals. Reported temperatures: 60° F to 82° F.

Participants: Coordinator Molly Bonnell, 220 Cannon Trail Road, Lexington, SC 29072. 803/359-6280. Donna Bailey, Barbara Darden, Kathleen O'Grady.

Lexington's exclusive species was a late Yellow-bellied Sapsucker. Also reported from Lexington County was a well-described Palm Warbler.

Richland County (Rich): 108 species, 2494 individuals. Reported temperatures: 60° F to 82° F.

Participants: Coordinator Robin Carter, 4165 E. Buchanan Drive, Columbia, SC 29206. 803/788-8820. Steve Dennis, Caroline Eastman, Henry Fuseler, Heidi Hoerman, Tammy Sutherland.

Among the migrants reported from Richland County were Veery, Gray-cheeked Thrush, and Swainson's Thrush.

Spartanburg County (Spar): 134 species, 4124 individuals. Reported temperatures 60° F to 82° F.

Participants: Coordinator Lyle Campbell, 126 Greengate Lane, Spartanburg, SC 29307. 864/585-1228. John Allen, Robbie Allen, Barney Altman, John Barry, Susan Barry, Beth Bartel, David Campbell, Matthew Campbell, Sarah Campbell, Alan Chalmers, Edith Clark, Marion Clark, Dan Codispoti, Vince Conners, Linda Deahl, Dennis Funk, Pat Fowler, Roy Fowler, Robin Gillman, Teresa Glen, John Green, Conway Henderson, Gladys Henry, J. B. Hines, Myra Hines, Betty Howard, Marilyn Hubbell, Joel Jones, Micky Marotte, Jim Miller, Margaret Miller, Susan Monk, Bill Moody, Nora Moore, Mary Anne Myers, Gill Newberry, Ken Pearson, Lisa Pearson, Bob Powell, Sandra Powell, Hugh Pry, Janet Pry, Doug Raynor, Crystal Schirmer, Walton Scott, Jenny Scott, Mac Shealey, Tina Taylor, Gerald Thurmond, Chris Welch.

Spartanburg County had four exclusives – Red-breasted Nuthatch, Canada Warbler, Dickcissel, and White-crowned Sparrow.

Williamsburg County (Will): 78 species, 492 individuals. Reported temperatures: 60° F to 84° F.

Participants: Coordinator John Snow, Rt 1, Box 192, Hemingway, SC 29554. 843/558-5430. Paula Sutton, George Sutton, Joyce Braxton, Sarah Jo Freeman.

Among the good birds that Williamsburg County reported were Ruddy Duck and Swallow-tailed Kite.

North American Migration Count																		
South Carolina																		
8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Common Loon			2	1							1						4	3
Pied-billed Grebe			7	1		2							2		1		13	5
Northern Gannet			5						13								18	2
Brown Pelican			94				19		49		40						202	4
Double-crested Cormorant	2		96	2	4	4	9	9	31	2	23		3	6	13	33	202	12
Anhinga	11	1	60			11				6	54			1			133	6
American Bittern			6														6	1
Least Bittern			17			3					2						22	3
Great Blue Heron	8	5	43	6		8	2	1		9	13	5	5	15	18	1	130	12
Great Egret	5	1	485			9	10	13	16	5	175		1	1		4	716	10
Snowy Egret			175				7		11	2	115					6	310	5
Little Blue Heron	2		79				1		4	16	30			1		2	131	6
Tricolored Heron			97				8		5	2	47						159	5
Cattle Egret		7	40			1			8	8	89			4		40	157	7
Green Heron	5	2	78	4	1	5	6	1	5	3	14	2	3	3	3	2	130	14
Black-crowned Night-Heron			31								29						60	2
Yellow-crowned Night-Heron			11							1	36			12			60	4
White Ibis			47				16		60	118	103						344	5
Glossy Ibis			46								25						71	2
Wood Stork			8							9	41						58	3
Fulvous Whistling Duck											1						1	1
Canada Goose	37	2	12	29	6			3				2	65	53	83	4	255	9
Wood Duck	18		90		2	7		4	4	2		12	18	6	17	6	162	10
American Black Duck											21				4		25	2
Mottled Duck		2	17								7						26	3
Mallard	1		5		2			1		7	47	2	7	19	126		216	9
Blue-winged Teal			19								28		7				54	3
Northern Shoveler											1						1	1

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Ring-necked Duck													1				1	1
Lesser Scaup										1							1	1
scaup sp.											10						10	1
Black Scoter			15								1						16	2
Hooded Merganser													5				5	1
Red-breasted Merganser							1		14								15	2
Ruddy Duck			1	2							14					1	17	3
Black Vulture	15	9	53	5	2	3	1	40	9	26	6		9	12	14	1	189	13
Turkey Vulture	15	23	117	9	7	18	3	35	13	27	66	17	33	13	51	9	432	14
Osprey			20	1		14	1	1	6	1	6			1	1		52	10
Swallow-tailed Kite			10								3					2	13	2
Mississippi Kite	15	16	33			2				3	8	12		6		1	80	7
Bald Eagle	2		4						2	14	2						22	4
Northern Harrier											1		1		2		4	3
Sharp-shinned Hawk	2				1						1				2		4	3
Cooper's Hawk			1	2											2		5	3
accipiter sp.													1				1	1
Red-shouldered Hawk	11	6	7					3	2	2	1	2	9	3	15	1	50	10
Broad-winged Hawk			3	1				4					3		5		16	5
Red-tailed Hawk	3	5	16	6	6	3		3	3	1	4	2	5	11	28	6	93	13
American Kestrel			3		1								6		2		12	4
Merlin			1														1	1
Ring-necked Pheasant				1													1	1
Wild Turkey	1		9					2	7	1		3	4		5	3	31	7
Northern Bobwhite	11	2	7	17		2		2	1	5	22	1		5	13	4	77	11
Clapper Rail			7				1		11		3						22	4
Virginia Rail			5														5	1
Sora			2												1		3	2
Purple Gallinule										1	1						2	2
Common Moorhen			57			4	1		1	5	37						105	6
American Coot			65			3			8		33		1		1		111	6

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Black-bellied Plover			39				26		60		60						185	4
Wilson's Plover									5		3						8	2
Semipalmated Plover	2		614				135		278		24						1051	4
Killdeer	7	3	51	14	2			4	3	1	10	2	21	13	27		151	12
American Oystercatcher			15				2		5								22	3
Black-necked Stilt			52						1		179						232	3
American Avocet											161						161	1
Greater Yellowlegs			48				1		5		35		3		1		93	6
Lesser Yellowlegs	2		69					3	1		77				1	1	151	5
Solitary Sandpiper			13	2	1		1				1		1		13		32	7
Willet			15				16		9		19						59	4
Spotted Sandpiper	15		34		3				7		29	1	4	2	23	12	103	8
Whimbrel			88				37		12								137	3
Marbled Godwit							10										10	1
Ruddy Turnstone			56				3		28								87	3
Red Knot			322						120								442	2
Sanderling			112				2		45								159	3
Semipalmated Sandpiper			112						6		55				3		176	4
Western Sandpiper	3		57						1		16						74	3
Least Sandpiper	89		80		4		7				62				2	1	155	5
White-rumped Sandpiper			1														1	1
peep sp.			25				140		6								171	3
Pectoral Sandpiper	4		1														1	1
Purple Sandpiper									1								1	1
Dunlin			64				166		155		20						405	4
Stilt Sandpiper			17								40						57	2
Short-billed Dowitcher			65				200		40		106						411	4
Common Snipe			1		1				1						2		5	4
Laughing Gull			746			3	54		51								854	4
Bonaparte's Gull											40						40	1
Ring-billed Gull			60				11		6		3	2	6	8	1		97	8

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Herring Gull			2				3	3	3		4						15	5
Gull-billed Tern			15														15	1
Caspian Tern			27			7	3		3		9						49	5
Royal Tern			19				6		14		3						42	4
Sandwich Tern									14								14	1
Common Tern			2														2	1
Forster's Tern			52				4	1	3		2						62	5
Least Tern			53				12		61		80						206	4
Black Skimmer			262				4				2						268	3
Rock Dove	15	6	118	3	2	5	2	8		8	16	25	9	92	50	3	344	13
Eurasian Collared Dove		1					4										5	2
Mourning Dove	44	39	140	65	12	18	2	31	68	29	46	23	70	122	240	35	905	14
Common Ground-Dove			6				1				2						9	3
Black-billed Cuckoo			7										1				8	2
Yellow-billed Cuckoo	23		62	2		8		5	6	1	2	10	3	16	1	3	116	11
Barn Owl			3		1												4	2
Eastern Screech-Owl			15	2								3		5	2		27	5
Great Horned Owl			1		1			2							1		5	4
Barred Owl	4	1	7		1			2	1			2	1	11	2	1	28	9
Common Nighthawk			6		3						10	2	1	7	4		33	7
Chuck-will's-widow	8		39	2	1			3	2			6	9	8	24	4	94	9
Whip-poor-will	2		2	1	1			2	4				20	4	16	1	50	8
Chimney Swift	40	21	365	23		3		12	18	11	7	22	37	70	129	8	718	12
Ruby-throated Hummingbird	3	4	14	2		1		5	1	3		14	5	3	11	2	63	11
Belted Kingfisher	3	1	9	2				2			2	4	6	6	5	1	37	9
Red-headed Woodpecker	9	7	15	1				3	6	7	4	4	2	15	2	1	66	11
Red-bellied Woodpecker	29	14	51	17	2	1		4	9	13	12	23	12	31	42	6	231	13
Yellow-bellied Sapsucker												1					1	1
Downy Woodpecker	2	4	14	6		2		6	5		1	10	2	5	12	2	67	11
Hairy Woodpecker			2					1							7		10	3
Red-cockaded Woodpecker			12						2	5							19	3

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Northern Flicker	1		14	12		4		3	2			5	1	4	4		49	9
Pileated Woodpecker	10	4	34	4				3	2		2	7	9	12	6	3	83	10
Eastern Wood-Pewee	18	7	70	1	1	3		5	12			2	8	18	18	4	145	11
Acadian Flycatcher	10	9	33			3		4	7	1		5	3	17	2		84	10
Willow Flycatcher			1										2		2		5	3
Eastern Phoebe			1	23	2			4			1	3	30	1	44		109	9
Great Crested Flycatcher	16	53	409	6	3	14		7	18	7	4	11	11	31	8	7	582	13
Eastern Kingbird	67	50	121	26	2	22		9	1	33	17	14	25	32	66	9	418	13
Horned Lark														4	4		8	2
Purple Martin	14	88	116	19	22	6	20	4	6	44		1	20	20	50	5	416	13
Tree Swallow			2779		11	1			353	6	18		9	3	4	65	3184	9
Northern Rough-winged Swallov	4	13	32	1	2	1		13		2			19	7	10		100	10
Bank Swallow	3			3											1		4	2
Cliff Swallow			1		2800			32					6		274		3113	5
Barn Swallow	10	21	40	28	17	5	22	12	7	27	90	10	77	66	231	4	653	14
Blue Jay	23	38	103	41	5	9	2	7	12	11	21	13	24	41	98	6	425	14
American Crow	73	54	104	43	11	2		23	14	7	50	24	67	59	167	22	625	13
Fish Crow	34	8	18	1	3	15	1	10	5	9	78	4	15	21			188	13
crow sp.	64		82							24	8			39			153	4
Carolina Chickadee	31	4	130	13		6		16	11	5	4	23	33	37	64	2	346	12
Tufted Titmouse	55	26	172	21	3	3		17	16	2	5	32	28	60	75	3	460	13
Red-breasted Nuthatch															2		2	1
White-breasted Nuthatch	1		7						3	4			2	2	6		24	6
Brown-headed Nuthatch	13	2	14	2				6	5	6	1	8	11	40	7		102	11
Carolina Wren	34	38	125	23	3	14		3	13	2	13	34	24	72	68	6	432	13
House Wren			2					1					2		9		14	4
Sedge Wren													1				1	1
Marsh Wren			38				1				8						47	3
Golden-crowned Kinglet													4				4	1
Ruby-crowned Kinglet														3	1		4	2
Blue-gray Gnatcatcher	13	20	110	31		14	2	18	30	15	1	34	34	61	25	8	395	13

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Eastern Bluebird	19	21	32	41	5		3	8	19	23	2	12	48	24	102	10	340	13
Veery				2				2						2	1		7	4
Gray-cheeked Thrush								3						1			4	2
Swainson's Thrush								7					2	2			11	3
Wood Thrush	3	15	25	5		1		1	8			6	14	11	15		101	10
American Robin	1	20	15	85	4			3	1			12	47	46	182	1	415	10
Gray Catbird	4	2	8	5	2			1	4	1	2	7	7	8	22		69	12
Northern Mockingbird	22	44	97	75	14	18	5	9	30	27	20	18	18	106	151	7	632	14
Brown Thrasher	13	10	86	38	3	6		2	6	14	25	9	15	13	87	4	314	13
American Pipit													15				15	1
Cedar Waxwing			74	112				15			197	10	82	12	66	3	568	8
Loggerhead Shrike	2	7	2		1	4			3	2				5	3	2	27	8
European Starling	27	26	113	48	51	10	24	7	55	8	15	19	60	82		9	518	13
White-eyed Vireo	22	23	138	2		5		9	10	2	8	9	4	27	4	1	241	12
Blue-headed Vireo								1					1				2	2
Yellow-throated Vireo	3		17	1		1		3		2			1	5	5		35	8
Warbling Vireo									1								1	1
Red-eyed Vireo	32	10	91	10		5		18	9	3	2	13	45	40	29		275	12
Blue-winged Warbler													1				1	1
Tennessee Warbler	1																1	1
Northern Parula	33	12	119	20	2	1		16	25	4	1	9	25	35	2	3	271	13
Yellow Warbler		3	5	1									2	1	3		15	6
Chestnut-sided Warbler													1		1		2	2
Magnolia Warbler				1					1								2	2
Cape May Warbler		1	1	1									16		2		21	5
Black-throated Blue Warbler		8	3			1						2	11	6	3	1	34	7
Yellow-rumped Warbler			4	2				1			2	1	9	5	19	1	43	8
Black-throated Green Warbler			1		1				1				12		1		16	5
Blackburnian Warbler								1					1				2	2
Yellow-throated Warbler	3	2	67					7	10		2	2	14	13	3		120	9
Pine Warbler	35	13	108	3	3	10		17	22	4	4	11	22	76	10	5	303	13

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Prairie Warbler	7		17		1			7	17	2			10	2	12		68	8
Palm Warbler												1	2		1		4	3
Bay-breasted Warbler				1									1				2	2
Blackpoll Warbler				2		2							5	1	31		41	5
Black-and-white Warbler		2	2	1				3	1				5		5		19	7
American Redstart	6	10		12				4		1	2	6	13	6	11		65	9
Prothonotary Warbler	12	8	21			13		2	16	2	2	7	3	16		4	90	10
Worm-eating Warbler									1				4		1		6	3
Swainson's Warbler		7	4					1	1				2	4			19	6
Ovenbird		1	3					2				6	10	2	1	1	25	7
Northern Waterthrush				1				1					3	5	1		11	5
Louisiana Waterthrush	2							3				2	2	2			9	4
Kentucky Warbler	1	1	9					3				6	3	4	1	1	27	7
Common Yellowthroat	5	17	97	8	1	11	3	12	11	1	7	16	16	15	27		242	14
Hooded Warbler		8	14			1		2	4				26	6			61	7
Canada Warbler															1		1	1
Yellow-breasted Chat	12	17	16	7	5	6		8	4		6	6	11	2	8	3	96	12
Summer Tanager	33	11	91		2	9		7	7	1	1	4	3	19	11	5	166	12
Scarlet Tanager			5					1				2	18	1	10		37	6
Northern Cardinal	80	49	327	58	13	33	2	20	23	13	49	62	45	137	157	6	988	14
Rose-breasted Grosbeak								1				1	4		12		18	4
Blue Grosbeak	8	8	36	9	4	22		6	3	4	7	1	8	13	22	8	143	13
Indigo Bunting	83	36	55	12	1	20	2	25	15	4	6	5	58	22	77	14	338	14
Painted Bunting	4	4	103			26			1	2	32	1					169	7
Dickcissel															2		2	1
Eastern Towhee	26	15	85	28	1	9		5	10	3	7	11	7	19	26	2	226	13
Bachman's Sparrow	6		13						2	5							20	3
Chipping Sparrow	5	2	7	27	2			3				16	19	3	34	4	113	9
Field Sparrow	4	9	7	17	3			3					8	6	35		88	8
Savannah Sparrow	2			9	1						8		1		10		29	5
Grasshopper Sparrow				5	2								8		18		33	4

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Seaside Sparrow			1														1	1
Song Sparrow				6									19		15		40	3
Swamp Sparrow			1								1				3		5	3
White-throated Sparrow			4												1	1	5	2
White-crowned Sparrow															1		1	1
Dark-eyed Junco													5				5	1
Bobolink	10	2000		3	10	10					480		1	167	69	14	2740	8
Red-winged Blackbird	76	25	1266	51	6	33	14	6	49	20	477	6	29	32	94	5	2108	14
Eastern Meadowlark	1	8		86	4	2		1				1	34	9	71	4	216	9
Boat-tailed Grackle			259				34		40		276						609	4
Common Grackle	28		551	88	15	23	12	13	13	44	2	21	32	98	138	6	1050	13
Brown-headed Cowbird	20		136	9	1	11	2	13	16	1		20	13	44	49	5	315	12
blackbird sp.				5											4		9	2
Orchard Oriole	5		63		1	41		6	9	15	22	2	6	8	5	8	178	11
Baltimore Oriole			1										4	1	1		7	4
House Finch	25		30	14	1			10	7	2		27	23	48	87	2	249	10
American Goldfinch	5		1	23				11	2			12	84	1	49	1	183	8
House Sparrow	2		34	29	5	2		5		4		2	26	41	38		186	10
sandpiper sp?											2430		3				2433	2
sparrow sp?											10						10	1
Species	97	76	179	91	68	71	57	102	118	79	118	85	128	108	134	78	228	
Individuals	1650	3072	14917	1490	3117	605	1087	731	2323	774	6728	828	1914	2494	4124	492	40732	
																		Totals
Observers	8	4	45	10	3	4	2	5	10	2	14	4	11	6	52	5		172
Parties	5	2	15	8	1	1	1	2	4	1	5	5	3	4	39	2		91
#Counties	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		15

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
Hours foot	20.8	6.5	43.75	8.5	11.8	4	1.5	8.5	16.8	7.5	10	9.5	9.75	23.5	53.3	12		226.75
Hours car	11	9.5	63.75	14.3	1.5	2	1.25	5	4.25	5	13.5	1.5	20	11.5	27	2		182
Hours boat	0	0	1		0	0	0	0	0	0	3.5	0	0	0	4.5	0		9
Hours canoe/kayak	0	0	0		0	0	0	0	0	0	0	0	0	0		0		0
Hours bike	0	0	2.5		0	0	0	0	0	0	0	0	0	0		0		2.5
Hours horseback	0	0	0		0	0	0	0	0	0	0	0	0	0		0		0
Hours other	0	0	8		0	0	0	0	0	0	0	0	0	0		0		8
Miles foot	12.8	3	7.25	10	7	5	1.5	3	7.25	5.1	1.5	6	7	12.5	44	5		125.1
Miles car	52.5	118	235	123	86	60	10	119	108	103	28	70	294	216	418	16		2003.5
Miles boat	0	0	4		0	0	0	0	0	0	18	0	0	0	11	0		33
Miles canoe/kayak	0	0	0		0	0	0	0	0	0	0	0	0	0		0		0
Miles bike	0	0	14		0	0	0	0	0	0	0	0	0	0		0		14
Miles horseback	0	0	0		0	0	0	0	0	0	0	0	0	0		0		0
Miles other	0	0	31.5		0	0	0	0	0	0	0	0	0	0		0		31.5
Hours Feeder Watch	0	0	0	8	0	0	0	0	0	0	0	3	0	0	31.5	0		42.5
#Feeder Watchers	0	0	0	3	0	0	0	0	0	0	0	3	0	0	20	0		26
#Feeder Stations	0	0	0	3	0	0	0	0	0	0	0	5	0	0	17	0		25
Hours Stationary	0	0	0		0	0	0	0	0	0	0	3	0	0		0		3
#Parties Stationary	0	0	0		0	0	0	0	0	0	0	2	0	0		0		2
#Observers Stationary	0	0	0		0	0	0	0	0	0	0	3	0	0		0		3
Hours Owling	1	0	2.5	1	1.5	0	0	2	0	0	0	0.5	0	2.5	4	1		15
Miles Owling	0.5	0	4	1	0	0	0	0	0	0	0	0	0	43	29.5	0		77.5
#parties owling	1	0	3	2	0	0	0	1	0	0	0	1	0	2	3	1		13
#observers owling	1	0	4	2	0	0	0	1	0	0	0	2	0	2	5	2		18

8 May 1999	Aike	Calh	Char	Cher	Ches	Clar	Coll	Fair	Geor	Hamp	Jasp	Lexi	Ocon	Rich	Spar	Will	TOTAL Indiv	# Counties Report
TEMPERATURE: PRE-DAWN	59	60		63	-	-		56		-				60	63	60		
DAWN	60	60	60	58	48	-	60	55	63	64			60	60	58	61		
AM	72	73	70	70	-	68	70	60	71	74	70			73	70	65		
NOON	78	-	82	73	-	72	82	79	82	84	75				73	80		
PM	84	82	87	77	73	76	87	82	86	87	80		82	82	77	84		
SUNSET	84	75	70	74	-	-	70	72		-	75			75	74	81		
NIGHT	77	60		66	-	-		68		-				60	66	76		
WIND: PRE-DAWN	6	5		7	-	-		0		-				5	7	0		
DAWN	5	5	0	8	10	-	0	0	15	0			0	5	8	5		
AM	6	5	12	10	-	-	12	5	15	0	15			5	10	7		
NOON	3	-	8	13	-	-	8	10	15	2	5				13	10		
PM	8	12	12	16	25	-	12	5	15	5	15		15	12	16	10		
SUNSET	7	0	7	9	-	-	7	0		-	15			0	9	7		
NIGHT	5	0		8	-	-		0		-				0	8	5		
%CLOUDS: PRE-DAWN	0	0		10	-	-		0		-				0	10	90		
DAWN	0	30	5	10	-	-	5	0	30	50			0	30	10	90		
AM	0	15	5	10	-	-	5	0	30	0	25			15	10	90		
NOON	10	-	10	10	-	-	10	0	60	0	25				10	60		
PM	30	0	20	10	-	-	20	10	60	20	25		30	0	10	60		
SUNSET	50	0	10	10	-	-	10	0		-	30			0	10	90		
NIGHT	50	0		10	-	-		0		-				0	10	90		
PRECIPITATION:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		

2000 Spring Bird Count

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This year's count tallied the highest number of species and the second highest number of individual birds since 1992. Birders in seventeen count areas put in 1095.55 field hours, which is good but not record breaking. Folks just saw more birds per hour. New River did not report this year. We added two new areas this year: Henderson County, NC, and Lower Saluda River, SC. Adding more mountain and coastal counts should result in some changes in the birds seen and helps make the total count more representative of the entire area instead of emphasizing the Piedmont. The weather was generally good with little precipitation, and several counts reported warmer than usual temperatures.

A number of species were reported in record low numbers: Bobwhite, Chimney Swift, Purple Martin, Yellow-throated Vireo, Blue-winged Warbler, Worm-eating Warbler, Field Sparrow, and Brown-headed Cowbird. Also at record lows were Rock Doves and American Robins. Are these last two really down or are people overlooking them? Ring-billed Gull, Horned Lark, Black-throated Blue Warbler, and Eastern Meadowlark continued to decline. This was not a good year for Veery, Raven, White-throated Sparrow, Purple Finch, Cooper's Hawk, American Kestrel, Wild Turkey, Northern Oriole, or Palm or Black-and-white Warblers.

Now we have good news. 30 species were reported in record numbers. These include Great Blue Heron, Canada Goose, Black and Turkey Vultures, Red-shouldered Hawk, Spotted Sandpiper, Red-bellied, Downy, and Hairy Woodpeckers, chickadee, titmouse, all the nuthatches, Blue-Gray Gnatcatcher, Gray Catbird, White-eyed and Red-eyed Vireos, Ovenbird, Northern Waterthrush, Northern Cardinal, Indigo Bunting, Eastern Towhee, and American Goldfinch. Other species such as Great Egret, Snowy Egret, Mississippi Kite, Western and Least Sandpipers and Great Crested Flycatcher were up because of the new South Carolina count as well as a good year in Charleston. Juncos were also reported in record numbers, but most of them occurred in one count area – Highlands Plateau. Common Loon, Yellow-billed Cuckoo, Acadian Flycatcher, Chimney Swift, Fish Crow, Northern Mockingbird, Brown Thrasher, and Song Sparrow had a good year. Carolina Wren, House Wren, and Pine Warbler continued their steady increases.

When comparing count years, we look at the number of birds reported adjusted for the number of field hours put in for each year. We also assume that the count areas remain the same unless stated otherwise by the compiler. Many counts are trying to run the Spring Count and the Migratory Bird Count on the same day. While this does "kill two birds with one stone," to use an ornithological phrase, this can change the numbers. Some areas are running the Spring Count a week or two later than they have historically to hit the

Migratory Bird Count Day. The counts also use different count territories. The Migratory Bird Count uses the entire county rather than the 15-mile circles used by the Spring and Christmas Counts. It would not be difficult, when running simultaneous counts, to confuse which area a bird was reported in or to blur the lines where one count stops but the other continues. These variables should be taken into account when looking at these data.

CPNC-Chapel Hill. Center Franklin and Columbia Streets. May 14, 0430-2100h. Temperature 57°-82°, with no precipitation. Wind 5-10 mph, and the sky was partly cloudy.

Participants: Compiler Will Cook, 418 Sharon Rd., Chapel Hill, NC, 27514. Karen Bearden, Joe Bearden, Barb Brooks, Norm Budnitz, Chris Canfield, Sandy Cash, Bob Chase, Bobbie Collins-Perry, Will Cook, Beth Duncan, Chris Eley, Kent Fiala, Kate Finlayson, John Frederick, Nancy Gorham, Maurice Graves, Steven Graves, Perry Haaland, Ruth Harris, Edwin C. Hobson, Patrick H. Hobson, Fran Hommersand, Alan Johnston, Eleanor Kilgour, Fred Kilgour, Betty King, Ken Klapper, Jim Lansing, Ken Lundstrom, Irmgard Muller, Dave Murdock, Miriam Murdock, Judy Murray, Oliver Orr, Jeff Perry, Magnus Persmark, Jay Rabb, Malcolm Robinson, Barbara Roth, Harriet Sato, Lois Schultz, Mike Schultz, Doug Shadwick, Marsha Stephens, Elvin Strowd, Edith Tatum, Shelley Theye, Pam Timmons, Ginger Travis, Lee Van Malssen, Bobbie Wilkerson, Bruce Young, Jeanine Zenge.

Compiler's Comments: The 43rd Chapel Hill Count was a little below average in number of species, probably due to the late date. Thanks to a high level of participation, however, we had our highest count of individual birds ever. Our best birds included a female Anhinga seen soaring high near Jordan Lake by Steve Graves (only the second record on a Chapel Hill spring count), an Olive-sided Flycatcher seen at the Mason Farm by Will Cook (our fourth record), a very late Brown Creeper well described by Bobbie Wilkerson, and a Wilson's Warbler seen at Mason Farm by Will Cook (our fifth record). Other birds that we usually miss included 5 Wild Turkeys, a Chuck-will's-widow, and 2 Canada Warblers.

The number of parties and party hours was the best in years, so we set a large number of record highs. The count of 87 Great Blue Herons shattered the record of 23 from last year. Boosting the number was our first-ever heronry, which had 18 active nests. It was found on Cub Creek in Chatham County by Alan Johnson and Edith Tatum. The count of 43 Red-shouldered Hawks blasted past the 28 set in 1997, thanks in part to Alan Johnston's neighborhood family of five. The 27 Song Sparrows more than doubled the old record of 13, thanks in part to their increased use of urban habitats, such as shopping mall parking lots, where they were formerly absent. Other record highs were set for Black Vulture, Turkey Vulture, Canada Goose, Mallard, Killdeer, Ruby-throated Hummingbird, Downy Woodpecker, Pileated Woodpecker, Great Crested Flycatcher, Red-eyed Vireo, American Crow, Carolina Chickadee, Tufted Titmouse, White-breasted Nuthatch, Blue-gray Gnatcatcher, Pine Warbler, Summer Tanager, Northern Cardinal, and Indigo Bunting.

A few species were seen in unusually low numbers. The count of 55 Barn Swallows was our lowest since 1974, far below the mean of 96. Because of the

late date we found only 4 Black-throated Blue Warblers (mean 31), 4 Yellow-rumped (Myrtle) Warblers (lowest ever; mean 163), and 3 White-throated Sparrows (ties record low; mean 66). Field Sparrows were also scarce, with only 21 (lowest since 1969, mean 43).

DUNC-Durham, NC. Center one mile east and one mile south, jct. Eno River and US 501. April 30, 0530-1800h. Temperature 58°-78°F. No precipitation. Wind calm, and the sky was foggy in the morning, clear by 10:00.

Participants: Compiler Michael Schultz, 5504 Woodberry Rd., Durham, NC 27707. Tim Allen, Norm Budnitz, Hartsell Cash, Sandy Cash, Will Cook, Anson Cooke, John Frederick, Christina Kennedy, Ken Klapper, Janet Krakauer, Tom Krakauer, Jeff Pippen, Joshua Rose, Harriet Sato, Lois Schultz, Michael Schultz, Douglas Shadwick, Ron Silverman, Jonathan Steere, Matt Steere, Edith Tatum, Carol Williamson.

Compiler's Comments: This year's count fell on the latest day possible for our count window. Hence, many of the "late" migrants were seen in high numbers for this count. Species setting record highs were Canada Goose, Blue-winged Teal, Wild Turkey (reported on 6 of 13 parties!), E. Wood Peewee, Great Crested Flycatcher, E. Kingbird, Gray Catbird, Yellow-rumped Warbler, Indigo Bunting, Rusty Blackbird, and American Goldfinch.

Notable low numbers were 13 Ring-billed Gulls, the first time since the flooding of Falls Lake that this species has been below 100! The much-talked about decline of the local Ruby-crowned Kinglet population as a result of the severe January snows was evident with a record low of 2 individuals. Other species with low numbers are all associated with open field habitats that are in great decline in this count circle.

GRNC-Greensboro, NC. Center the intersection of Highway 220 N and Pisgah Church Rd. April 29, 0630-1600h. Temperature: 43-66°F. Precipitation .05". Wind calm in the morning, with an increase to 4mph in the afternoon. Sky was clear and calm in the morning, but a front with wind and rain came in about 1500h.

Participants: Compiler Don Allen, 2611 David Caldwell Dr., Greensboro, NC 27408. Carolyn Allen, Donald Allen, Jean Berry, Louise Brown, Dennis Burnette, Lynn Burnette, Chris Carter, Sue Cole, Phil Crisp, Judith Durr, Peggy Ferebee, Rose Freedman, Larry Gasper, Isabel Gillespie, Nancy Hannah, Kathryn Lambeth, Jane Lewis, Elizabeth Link, Henry Link, Clarence Mattocks, James Mattocks, Jean McCoy, Greg Morris, Lib Morrison, Lynn Moseley, Jean Murdick, Jean Murphy, Ruth Neal, Elaine Oldham, Laurie Sorrell, Emily Tyler.

Compilers Comments: The day started with considerable promise – clear sky, little or no wind, cool temperatures. That promise, however, was not to be fulfilled. At mid-afternoon (about 3:00 PM) a front came through the area with dark clouds, gusty wind, and rain. This development took most parties out of the field.

The totals for the day were a bit disappointing. Some warblers and other birds that had been expected did not appear on Count Day for whatever reason, so several species were found only in the Count Period rather than on Count

Day. Such are the disappointments of those who must schedule events months ahead.

Other things comprise a different set of problems. Mostly, they seem to fall under the heading of, "Too Many People," and all that goes with that: Too much development in the Count Territory, too much traffic on the streets and roads, and too many people doing all the things they do on weekends. Such problems are not unique to the Greensboro Count, and it's likely that all the counts are so influenced to some degree. But it's not as much fun as it might be, and it's more difficult to be accurate in determining what's in your area.

HCNC-Henderson County. Center 35°21'N 82° 33'W. May 13, 0630-1700h. Temperature 55°-85°F with a slight shower at 16:00h. Wind was 0-10 mph SSW, with a clear sky in the morning becoming cloudy to partly cloudy in the afternoon.

Participants: Compiler Marilyn Westphal, 230 Park Lane, Hendersonville, NC 28791. Larry Farer, Rick Hensley, Barbara Neal, Harvey Neal, Jim Neal, Francis Ogasawarra, Bob Olthoff, Len Pardue, Ron Selvey, Marilyn Westphal.

Compiler's Comments: As this count was combined with the regular international migration count, most of the actual compilation was done by Barbara and Jim Neal. The compiled data was passed on to me, and I added the information about the birds seen during the count period (3 days before and after). Combining this count with the regular migration count was the only way we could possibly get it done, as all other weekend dates were filled with other activities such as CBC weekend and Big Days. We used the Christmas Count, circle as the sections covered were the same.

HPNC-Highlands Plateau. Center Highlands. May 13, 0800-1530h. Temperature 56°-74°F. Wind light to none, and the sky was clear.

Participants: Compiler Marianne McKay Smith, 243 Deer Run, Highlands, NC 28741. Compiler Cynthia Strain, P.O. Box 1238, Highlands, NC 28741. Martha Brennan, Pam Brown, Joe Clark, Mozelle Edwards, Frances Graves, Beth Greenlee, Jason Love, Mary Osmar, Jennifer Ralph, Marianne McKay Smith, Cynthia Strain, John Williamson, Myra Williamson, David Wood, Jane Warth, Shirley Bohnert, Marcia Lester, Herman Mull.

ICNC-Iredell County, NC. Center Chipley Ford Bridge at South Yadkin River. May 7, 0630-1700h. Temperature 56°-88°F. Wind was from the south at 3-7 mph, with sunny skies.

Participants: Compiler Sam Cathey, 130 Park Street, Stateville, NC 28677. Cynthia Dickerson, Bill English, Lois Goforth, Thad Goforth, Lee Hollifield, Richard Holshouser, Larry Marlin, Dick Mize, Allen Stanley, Garner Underwood, Ron Underwood.

Compiler's Comments: The unusually hot weather seems to have caused a languid bird day, with singing, particularly by the warblers, at a minimum. Development in our count area (the dairying region of North Iredell), increases at a more rapid pace, especially in the southern part near Statesville.

JLNC-Jordan Lake, NC. Center at former crossing of New Hope River and Pea Ridge Rd (Rt 1700), now under water. May 7, 0500-2000h. Temperature 60°-90°F. Wind was calm to light and variable. Sky was clear to scattered clouds (10%).

Participants: Compiler Norman Budnitz, 4115 Garrett Drive, Durham, NC 27705. Kim Aycrigg, Barbara Beamam, Yvonne Becker, Kyle Blankenship, Barbara Brooks, Norman Budnitz, David Campell, Harold Carter, Robert Chase, Barbara Coffman, Patrick Coin, C.W. Cook, Tom Driscoll, Beth Duncan, Claudia Egelhoff, Elizabeth Elliot, Marty Girolami, Maurice Graves, Steven Graves, Steve Hall, Willard Hartman, Walton Haywood, Chuck Helmick, Russell Herman, Loren Hintz, John Kent, Betty King, Kenneth Klapper, Charles Konrad, Tom Krakauer, Elizabeth Link, Henry Link, Barbara Logue, Terry Logue, Phillip Manning, Melinda Meade, Kyle Mills, Micky Mills, Robin Moran, Judy Murray, Monica Nees, Magnus Persmark, Kevin Powell, Joshua Rose, Barbara Roth, Douglas Shadwick, Ron Silverman, Marsha Stephens, Shelley Theye, Pam Timmons, Andy Upshaw, Vaughn Upshaw, Margaret Vimmersted, Kristen Weigle, Carol Williamson, Rouse Wilson.

Compiler's Comments: May 7 was a warm morning followed by a hot afternoon. Fifty-six observers in 22 parties counted 9,444 individuals (a record high) of 122 species (a bit low), during 152 hours in the field (close to a record high). Perhaps as a result of this fairly thorough coverage, we recorded 16(!) species in new record high numbers (or ties for the record). Of these, 11 surpassed records previously set in 1998 or 1999. So it is also possible that we are seeing a reflection of the habitat changes that have been occurring in and around Jordan Lake. (See compiler's comments for spring 1998 for a description of these changes.) The lake itself is maturing, and its surroundings are being developed for residential communities. Perhaps many of the new records reflect these two changes.

Records were set or tied for Double-crested Cormorant (632), Canada Goose (148), Osprey (24), Chuck-will's-widow (25), Downy (54), Hairy (15), and Pileated (25) Woodpeckers, Red-eyed Vireo (388), American Crow (311), Cliff Swallow (206), Carolina Chickadee (283), Tufted Titmouse (357), Blue-gray Gnatcatcher (394), Northern Mockingbird (111), Brown Thrasher (64), Pine Warbler (311), and Ovenbird (168).

Observers recorded relatively few through-migrant warblers and few duck species, accounting for the below-average species total. Rather unusual species were 5 Great Egrets, 1 Blue-winged Teal, 1 Common Merganser, 1 American Coot, 1 Greater Yellowlegs, and 3 lingering Evening Grosbeaks.

MJNC-Mt. Jefferson (Ashe County). Center as in previous years. May 13, 0615-1500h. Temperature around 70°F. Sky was mostly clear, with little wind.

Participants: Compiler Van Morrsion, 262 Laurel Mountain Estates, Todd, NC, 28684. Dan Lane, John MacConnell, Vaughn Morrsion.

RANC-Raleigh (Wake County), NC. Center at Lake Wheeler Road (Farmer's Market). May 13, 0600-2000h. Temperature 70°-90°F (record heat). Wind was slight, with clear skies.

Participants: Compiler John Connors, 1227 Mordecai Drive, Raleigh, NC 27604. J. Angerman-Stewart, J. Argentati, J. Bearden, K. Bearden, F. Bennett, D. Brame, J. Brewster, M. Brewster, J. Brunyl, J. Connors, G. Farnsworth, L. Gosselin, D. Hardy, B. Hawkins, A. Hicks, V. Janke, C. McKree, J. Mulholland, J. Parsley, T. L. Quay, H. Sato, C. Smith.

Compiler's Comments: It was very hot, with record temperatures and no recent fronts. Birds were fairly quiet. A Hooded Merganser and 4 young were at Yates Mill Pond, where the lake recently refilled. Tree Swallows may be nesting along Raleigh Blvd. in a wooded impoundment there. King and Virginia Rails were heard and seen on Greenview Road. There was a late American Pipit at NCSU farms along with the Cattle Egrets.

RVNC-Raven Rock State Park. Center at the intersection of NC 210 and SR. 1434; 2.75 miles north of Lillington. April 24, 0545-1920h. Temperature 44°-70°F. Light precipitation in part of the circle. Sky mostly clear AM, partly cloudy with an isolated thundershower in the afternoon.

Participants: Compiler Paul C. Hart, Raven Rock State Park, 3009 Raven Rock Road, Lillington, NC 27545. Jim Bateson, David Brown, Molly Fullwood, Paul Hart, Tom Howard, Bobby Lufty, Kevin Reese, Mitch Reese, Larry Rose, Mary Stevens, Sarah Stevens, Erik Thomas.

Compiler's Comments: The species total of 122 tied a record for the highest species count set in 1989. Misses included Cedar Waxwing (seen during count week), American Woodcock, and Greater Yellowlegs. High counts of several species were reported, including Double-crested Cormorants (210), Fish Crow (55), and Eastern Kingbird (170). The number of cormorants reported is attributable to groups seen migrating. A single Pectoral Sandpiper, seen by Tom Howard, was the first report of that species since 1981. An apparently territorial male Swainson's Warbler, reported by David Brown, was in the same location as one seen and heard in the park the previous two years. Twenty warbler species were reported, but only five species of migrants were observed.

SPNC-Southern Pines, NC. Center at 35°13'N 79°19'W, 1 mile NE of the skyline. April 30, 0500-1700h. Temperature 43°-72°F. Light winds ranged from calm to 6 mph NNW. There was some fog early, turning into fair skies.

Participants: Compiler Susan Campbell, 144 Pine Ridge Drive, Whispering Pines, NC 28327. Jackie Britcher, Susan Campbell, J. H. Carter III, Dick Dole, Lois Dole, Charlotte Gantz, Barbara Gearhart, Chris Helms, Dean Holzgraf, Tom Howard, Wayne Irvin, Al McDonald, Dan Pieroni, Mary Stephenson, Vaud Travis, Libba Watson.

SMNC-Stone Mountain, NC. Center unknown. May 13, 0600-1230h. Temperature 66°-87°F. Wind was from the NE up to 20 mph, with partly cloudy skies.

Participants: Compiler John MacConnell, 2918 Silas Creek Road, Lansing, NC 28643. Jim Keighton.

WSNC-Winston-Salem, NC. Center at the intersection of Silas Creek Parkway and I-40 Business. May 6, 0430-2000h. Temperature 63°-87°F. Wind was calm, with partly cloudy to clear skies.

Participants: Compiler David Disher, 4145 Chatham Hill Drive, Winston-Salem, NC 27104. Reggie Burt, Peg Cochrane, Betty Grey Davis, Bill Davis, Larry Davis, Linda Davis, Doug Deneve, Phillip Dickinson, David Disher, Susan Disher, Cynthia Donaldson, Gardner Gidley, Margaret Gidley, Toby Gordan, Billy J. Hammond, John Hammond, Susan Hammond, Hattie Hauser, Bert Hollifield, Royce Hough, Lois Jones, Ray Kandt, Barbara Kendrick, Leon Kendrick, Jim Martin, Mary Allen Martin, Tom Mowbray, Ed Mulvey, Margaret Mulvey, Dorothy Pennington, Paul Powers, Lloyd Ramsey, Ann Robertson, Chester Robertson, Jackie Shelton, David Shuford, Ramona Snavely, Sebastian Sommer, Paul Spain, Bill Sugg, Gray Tuttle, Jay Wilhelmi.

Compiler's Comments: Our count circle's natural habitat has been under attack by development for quite a few years. This past year 4 fields that had harbored Grasshopper sparrows and Bobolinks now are home to single-family homes. One more location where the sparrows can be found easily will be a strip mall by our next Spring Bird Count date.

Count Day was the warmest in recent memory. The most unusual species were two Great Egrets (seen by two separate groups) and a Wild Turkey. The Wild Turkey was a Spring Bird Count first for us, but it was not unexpected. The bird is more than likely a result of the efforts of NC Wildlife Resources to restock the Yadkin River Valley. The restock had been a success, and turkeys can be seen commonly just outside the western edge of our circle.

CASC-Charleston, SC. Center 36˚56'N, 79˚42'W, near TV antenna just off Seawell Road. April 30, 0530-1830h. Temperature 65˚-85˚F. No precipitation. Wind 0-15 mph. Sky mostly clear, with some clouds at times.

Participants: Compiler Edwin Blitch III, 45 Sycamore Ave. #233, Charleston, SC 29407. Mike Bernard, Bob Chinn, E. Calvin Clyde, Stephan F. Compton, Zebulon A. Compton, Ed Condradi, Doreen Cubie, Jim Cubie, Hal Curry, Jan Dewitt, Dennis Forsythe, Donna Forsythe, Sunny Hankle, Brucie Harry, Jeremy James, Don Jones, Barbara Keefe, Dershie McDevitt, Davis C. McLean, David C. McLean, Jr., Gerald Muckenfuss, Allen Russell, Ann Shahid, Paul Siegel, Maurice Snook, Tonya Spires, Kay Woelfel.

Compiler's comments: As far as I know, 175 species on our spring count is an all-time high!

CGSC-Congaree Swamp, SC. Center 400 meters northeast of the confluence of Bates Mill Creek and Congaree River. May 13, 0530-1500h. Temperature 60°-97°F. Wind was 0-15 mph from the northwest, with clear to partly cloudy skies.

Participants: Compiler Robin M. Carter, 4165 Buchanan Drive, Columbia, SC 29206. Robin Carter, Dennis Forsythe, Donna Forsythe, Jack Stewart, Lula Stewart.

LSSC-Lower Saluda River, SC. Center at the intersection of Tudor Road and Silvermine Road, Irmo, SC. April 29, 0530-1730h. Temperature 60°-80°F. No precipitation. Wind 0-8 mph under cloudy skies.

Participants: Compiler Robin Carter, 4165 East Buchanan Drive, Columbia, SC 29206. Donna Bailey, Molly Bonnell, Bernie Cain, Nancy Cain, Robin Carter, Steve Dennis, Caroline Eastman, Jerry Griggs, Malia Griggs, Joyce Hall, Tom Hawkins, Allison Harvey, Tim Kalbach, Keith Kargel, Dennis Lau, Dennis Lee, Nancy Lyman, Kathleen O'Grady, Charles Poole, Roger Smith, Gary Sowell, Jack Stewart, Lula Stewart, Steve Tracey, Cindy Woods.

SPSC-Spartanburg, SC. Center at the junction of County Roads 539 and 590. May 13, 05:00-23:00h. Temperature 70°-89°F. No precipitation. Wind 0-22 mph, with skies clear.

Participants: Compiler: Lyle Campbell, 126 Greengate Lane, Spartanburg, SC 29307. Frankie Altman, Beth Bennett, Daniel Bennett, Susan Bennett, Tim Brown, Andrew Campbell, David Campbell, Lyle Campbell, Sarah Campbell, Tom Moore Craig, Pat Fowler, Roy Fowler, Robin Gilman, Michele Gilman, Teresa Glen, John Green, Emma Harrington, Conway Henderson, Glenn Inglehardt, Jack Jennings, Joel Jones, Herb Kay, Tammy King, Mary Ann Meyers, Angela Miller, Margaret Miller, Michael Miller, Susan Monk, Bill Moody, Nora Moore, Ken Pearson, Lisa Pearson, Mary Potter, Joanna Reider, Gretchen Reidsema, Ginny Scott, Walton Scott, Mac Shealy, Tina Taylor, Dick Thorpe, Lois Thorpe, Gerald Thurmond, Thomas Webster.

Compiler's Comments: May 13 was hot here. The official temperature of 89° was six degrees lower than that registered on many local thermometers. It was a late, hot day at the end of a late, hot spring. Consequently, our migratory transients had passed through earlier, and winter stragglers were rare or absent. These factors largely accounted for our lower numbers. Wood Thrush and Red-eyed Vireo, normally common summer residents, were unusually difficult to find. We do not know if this is a population decline or if they have responded to the unusually hot weather by migrating farther north. The best species we almost got was a pair of Scissor-tailed Flycatchers observed northeast of Spartanburg on May 16, but two miles beyond the edge of the count circle.

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Common Loon			*		2							7		1				10
Pied-billed Grebe			6							1		8		5		1	2	23
Horned Grebe												1						1
Northern Gannet														6				6
Brown Pelican														237				237
Double-cr. Cormorant	60	344	124	1		1	632		20	212		8	8	152		18	2	1582
Anhinga	1									1		2		6				10
American Bittern			1											1				2
Least Bittern														5				5
Great Blue Heron	87	77	10	1	*	8	35		32	10		2	4	34	3	30	16	349
Great Egret				*			5						2	398	1	14		420
Snowy Egret														245				245
Little Blue Heron														31				31
Tricolored Heron														50				50
Cattle Egret									2	1		1		26				30
Green Heron	13	14	13	10		6	21		13	4		10	14	41	2	2	6	169
Black-cr. Night-Heron														47				47
Yellow-cr. Night-Heron						1							1	1	5			8
White Ibis														20	2			22
Glossy Ibis														20				20
Wood Stork														22				22
Black Vulture	41	12	3	*		10	30			2	5	2	9	43	3	47	9	216
Turkey Vulture	150	70	27	29	14	29	124	6	5	24	25	30	56	122	16	111	41	879
Canada Goose	467	266	361	54	14	29	148		165	116	13	67	248	15		55	162	2180
Mute Swan												3						3
Tundra Swan														1				1
Wood Duck	50	46	24	12	14	6	56		22	12		9	23	11		9	2	296
American Black Duck														3				3
Mallard	98	43	152	24	25	3	36		49	36		44	104	16		10	86	726
Mottled Duck														9				9
Blue-winged Teal			5	*			1					2		63				71
Green-winged Teal			1															1
Ring-necked Duck												1						1
Lesser Scaup			*															0
Bufflehead														1				1
Hooded Merganser									6	1				5				12
Common Merganser							1											1
Red-br. Merganser			*									5		2				7
Ruddy Duck		4	3									3						10
Osprey	7	17	5		1	1	24		2	7		3	1	36		4		108
Am Swallow-td Kite														1				1
Mississippi Kite														7	8	1		16

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Bald Eagle	20	6	1		*		7		1			2		4		3		44
Northern Harrier		3		1						1				1				6
Sharp-shinned Hawk	2	3	4			2	4		1	1		1	1				1	20
Cooper's Hawk	1	3	5			2						1	8	1				21
Accipiter sp.			1															1
Red-shoulder Hawk	43	18	5			9	16		8	14		7	6	7		9	8	150
Broad-winged Hawk	2	4	2		3	1	10	2		4		3	1			3	1	36
Red-tailed Hawk	27	25	36	*		7	16	3	7	22	3	10	24	8	2	12	24	226
American Kestrrel		2	1	2		1			*	3		1	4				1	15
Merlin						1												1
Peregrine Falcon					*													0
Ruffed Grouse					2													2
Wild Turkey	4	15			3		2			3	5		1	18	1	2	15	69
Northern Bobwhite	9	3	3	4	1	12	15			7		12	2	6	1	2	15	92
Clapper Rail														22				22
King Rail									1					2				3
Virginia Rail									1					6				7
Sora														12				12
Common Moorhen														16				16
American Coot			12	*	*		1					50	1	19		5		88
Black-bld. Plover														187				187
Wilson's Plover														20				20
Semipalmated Plover				1									1	238				240
Piping Plover														4				4
Killdeer	63	34	31	15		14	56	1	27	18		18	21	46		12	16	372
Am. Oystercatcher														94				94
Black-necked Stilt														6				6
Greater Yellowlegs			1	1			1							103				106
Lesser Yellowlegs			1	9					1	2		2	6	45		2		68
Solitary Sandpiper	7	30	16	1		11	3		9	3		8	23	14		4	5	134
Willet														121				121
Spotted Sandpiper	7	25	48	1	2	4	24		10	26	2	43	18	147	1	13	7	378
Whimbrel														102				102
Ruddy Turnstone														19				19
Red Knot														375				375
Sanderling														69				69
Semip. Sandpiper				2									2	27				31
Western Sandpiper													1	224				225
Least Sandpiper	8		13	10					3	24		5	78	117				258
White-rumped Sandp														1				1
"peep"" sp."		8																8
Pectoral Sandpiper			1	1						1				15				18

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Purple Sandpiper														1				1
Dunlin														597				597
Stilt Sandpiper														1				1
Sh.-billed Dowitcher				9										233				242
Common Snipe		1	2	1														4
American Woodcock							1					1		1				3
Laughing Gull														945		*		945
Bonaparte's Gull														1		*		1
Ring-billed Gull		13	100				150		2			10	28	71		110		484
Herring Gull							1							33		1		35
Gt. Blk.-backed Gull														1				1
Gull-billed Tern														84				84
Caspian Tern														14				14
Royal Tern														118				118
Sandwich Tern														12				12
Common Tern														47				47
Forster's Tern														85				85
Least Tern														75				75
Black Skimmer														555				555
Rock Dove	57	55	30	1		7	26	5	118	29		13	64	25	7	83	31	551
Eur. Collared-Dove															2	2		4
Mourning Dove	409	116	208	71	35	125	248	22	162	242	6	190	195	116	44	134	135	2458
Common Ground-Dove														12				12
Black-billed Cuckoo								1								*		1
Yellow-billed Cuckoo	53	5		3		1	38		10				5	50	16	19	6	206
Common Barn-Owl																	*	0
East. Screech Owl	2					1	1			3		1	1	2	1	1	2	15
Gt. Horned Owl	3	1	1			1	3			1		1	4	5	1	1	2	24
Barred Owl	16	10		1	3	4	14		3	3		4	2	7	2	7	2	78
Common Nighthawk						1			1			1	12	2		2		19
Chuck-will's-widow	1	4				2	25		1	2		31	1	56	4	3	19	149
Whip-poor-will	23			*	3	2	38		1	3		26				3	11	110
Chimney Swift	192	99	125	33	4	49	158	31	67	100	1	60	161	41	48	65	134	1368
Ruby-thr. Hummingbird	60	30	8	3	38	13	15	6	8	12	2	10	8	5	2	18	13	251
Belted Kingfisher	7	5	10	1	2	2	7		12	8		6	11	6		9	5	91
Red-head. Woodpecker	10	11	4			1	16		4	2		10		40	2	4	2	106
Red-bel. Woodpecker	202	91	61	23		34	135	2	87	44		58	91	110	31	68	22	1059
Yellow-bel. Sapsucker	1		1															2
Downy Woodpecker	85	36	19	10	12	7	54	2	35	15	2	12	25	6	2	18	6	346
Hairy Woodpecker	19	8	1	9		2	15	1	12	1		2	7		4	1	*	82
Red-ckd Woodpecker												15		13				28
Northern Flicker	28	23	32	12	3	9	21	6	6	7	2	14	29	6	2	9	16	225

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Pileated Woodpecker	24	5		9	7	9	25		4	9	3	5	3	26	8	13	4	154
Olive-sd Flycatcher	1																	1
Eastern Wood-Pewee	67	7	3	14	3	2	51	5	6	17	1	16	21	15	13	1	5	247
Acadian Flycatcher	56	12	1	6	4	2	21	9	28	15		18	2	2	32	3	9	220
Willow Flycatcher				15				6										21
Least Flycatcher								4										4
Eastern Phoebe	28	14	6	14	11	21	21	12	4	10	2	15	22	1		9	40	230
Gt. Crested Flycatcher	70	32	16	5		5	92	2	47	48	3	84	21	698	50	60	11	1244
Eastern Kingbird	68	58	20	7		28	94	4	13	170		60	25	52	22	30	36	687
Loggerhead Shrike			1			3			1	10		7		4	6	1		33
White-eyed Vireo	33	22	6	22	1		46	2	29	26		35	11	231	29	25	6	524
Yellow-thr. Vireo	18	6	*				14	3	1	7	1	8	1	1	2	9	7	78
Blue-headed Vireo	4		3	1	42	1	2			1		2	3	3		1		63
Red-eyed Vireo	422	147	93	39	45	18	388	38	84	88	11	53	72	279	31	112	19	1939
Blue Jay	182	170	216	58	37	48	198	8	81	88	6	64	167	79	20	135	102	1659
American Crow	388	95	182	85	33	89	311	49	96	138	21	196	130	82	31	90	138	2154
Fish Crow	24	11	6				14		20	55		82	6	36	6	95	5	360
Common Raven					3						2		1					6
Horned Lark										1		2			1			4
Purple Martin	30	32	155	4		14	38		2	6	1	89	19	183	36	35	29	673
Tree Swallow	6	29	173	6			3	6	1	9	5	2	3	48			*	291
N. Rough-w. Swallow	40	8	24	6	12	11	27	8	18	35		14	29	62		45	3	342
Bank Swallow		6	4											2			1	13
Cliff Swallow		9	3				206						4			6		228
Barn Swallow	55	88	479	37	17	77	178	30	78	148	7	74	72	281	30	30	104	1785
Carolina Chickadee	439	97	132	55	77	34	283	11	113	61	5	50	78	42	11	83	66	1637
Tufted Titmouse	527	152	130	48	36	38	357	19	96	55	8	76	104	167	64	123	80	2080
Red-br. Nuthatch			*		11					2		1						14
White-br. Nuthatch	69	10	25	4	19	5	11	3	13	1	1	10	15	4	5		5	200
Brown-he. Nuthatch	50	31	26			3	56		30	18		53	10	50	8	23	2	360
Brown Creeper	1				1													2
Carolina Wren	346	77	86	72	15	32	208	3	75	53	2	104	139	102	87	151	98	1650
House Wren	29	24	12	5	1	4	3	20	2	7	1	2	19			16	14	159
Winter Wren					*													0
Sedge Wren														4				4
Marsh Wren		1										1		11				13
Golden-cr. Kinglet					5							1						6
Ruby-cr. Kinglet		2	7	1							1	1	1			10		23
B-g. Gnatcatcher	376	212	54	16	2	40	394	4	81	98		88	31	76	53	73	19	1617
Eastern Bluebird	241	72	120	31	14	92	173	6	31	114	8	111	117	33	9	19	118	1309
Veery	2		1		1	2		5	2	1			2		2	3		21
Swainson's Thrush	10	1	2	2	1		3		4				17		1	5		46

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Hermit Thrush		1	1							3		1	2					8
Wood Thrush	149	54	45	14	17	12	131	8	24	25	9	23	46	5	7	26	7	602
American Robin	361	213	409	135	70	158	93	80	152	92	3	74	454	7	5	94	166	2566
Gray Catbird	63	64	44	26	30	10	23	21	26	30	5	49	91	24	1	51	22	580
No. Mockingbird	278	77	180	60	*	78	111	2	63	131		92	129	151	40	108	94	1594
Brown Thrasher	90	23	41	32	19	29	64	10	11	36	2	41	45	44	12	52	82	633
European Starling	329	201	555	155	18	175	200	85	145	310	6	111	322	123	19	49	189	2992
American Pipit				5					1	3			2					11
Cedar Waxwing	38		23	73	4	91	32	6	6	*		21	104			111	15	524
Blue-winged Warbler		4	1									1				*		6
Tennessee Warbler																*		0
Northern Parula	52	45	15	8	23	2	102	6	8	22		10	28	136	50	47	5	559
Yellow Warbler	6	13	14	2			10	27	2	6	1	6	13	1		8		109
Chestnut-sided Warbler	3		3	15	41	1		14	1			1	2			1		82
Magnolia Warbler	6		*	1			2	2	*				2			1		14
Cape May Warbler			1										4		1	22		28
Blk.-thr. Blue Warbler	4	7	15		47	1	17	1	6	2	6	7	38		2	51		204
Yellow-rmpd Warbler	4	732	203		*	12	25		2	221		154	71	9		232	16	1681
Blk-thr Green Warbler		1	*	3	25			1			1		6					37
Blackburnian Warbler					4								2					6
Yellow-thr. Warbler	19	30				1	94		6	12		23		28	5	17	11	246
Pine Warbler	211	98	44			7	311		52	38		58	13	68	30	102	21	1053
Prairie Warbler	41	30	15			1	78		4	17		20		49		6	14	275
Palm Warbler		3	1							5			1					10
Blackpoll Warbler	6	2	*	3		1	6		5	1	1	1	7			2	3	38
Cerulean Warbler																*		0
Blk.-and-white Warbler	10	18	10	8	16	3	22	3		22		33	5	1		8		159
American Redstart	53	28	4	10	1	2	44	10	2	10	4	11	13	4	9	36	3	244
Prothonotary Warbler	36	23	1			1	19		3	13		15	2	95	20	3		231
Worm-eating Warbler	*	5	4		2											2		13
Swainson's Warbler										1		3			4	3		11
Ovenbird	108	33	21	11	29	2	168	27	23	27	15	25	12	1		30		532
Northern Waterthrush	10	6	2	4			1		3	3					1	8		38
Louisiana Waterthrush	13			2	1		7	3	3	11		6			6	4	4	60
Kentucky Warbler	10	2		*			8	1	3	7		1		13	4	4	2	55
Common Yellowthroat	103	135	37	36	4	7	109	17	26	38	1	40	34	126	3	18	2	736
Hooded Warbler	65	3	3	10	23		45	13	2	16	12	12		26	9	11	2	252
Wilson's Warbler	1	1														*		2
Canada Warbler	2			1	6	1							1					11
Yellow-br. Chat	72	34	8	5		7	98	2	5	20		24	12	70	5	17	5	384
Summer Tanager	112	23	5				91		18	40		31	1	25	14	41	10	411
Scarlet Tanager	51	22	11	14	5	12	72	3	11	8	3	4	29	1		14	1	261

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Eastern Towhee	243	115	76	117	62	25	132	33	67	48	8	101	100	137	25	56	45	1390
Bachman's Sparrow														10				10
Chipping sparrow	173	56	62	7	9	28	108	20	13	89	4	49	22	1		32	42	715
Field Sparrow	21	22	29	17		25	31	7	20	28	2	13	5		1	1	35	257
Savannah Sparrow		5	1				4	6	2	15		1	3	3				40
Grasshopper Sparrow	5	3	3	3		22	1	1	3	4		10	5				7	67
Seaside Sparrow														2				2
Fox Sparrow			1															1
Song Sparrow	27	27	92	142	100	10	1	75	2	4	2	4	55	1			11	553
Swamp Sparrow	2	10	*				1			18		2	1	2		12		48
White-thr. Sparrow	3	104	79		1	3			2	78		53	11	2		44	5	385
White-cr. Sparrow		4					5											9
Dark-eyed Junco				8	110			12			9	1						140
Northern Cardinal	728	238	242	128	38	82	304	28	148	155	3	148	246	269	69	211	166	3203
Rose-br. Grosbeak	1	2	2	4	39	1	8	3	*	4			21			31	1	117
Blue Grosbeak	58	15	4	4		11	105		9	45		18	8	26	3	16	5	327
Indigo Bunting	264	106	35	114	36	58	258	48	44	84	8	53	108	16	27	47	53	1359
Painted Bunting														82	6	7		95
Bobolink	50	10	*	100		12	86					2	1				1	262
Red-wing. Blackbird	108	110	75	51		59	79	55	49	58	2	21	51	339	12	17	44	1130
Eastern Meadowlark	23	15	43	23		114	47	3	11	45	1	39	15	3	5	2	48	437
Rusty Blackbird		100																100
Common Grackle	391	169	416	51	3	154	245	70	201	242	4	143	457	137	22	139	160	3004
Boat-tailed Grackle														248				248
Br.-headed Cowbird	116	68	40	15		22	126	10	37	59	1	30	63	45	5	38	33	708
Orchard Oriole	22	22	6	5		7	33	2	11	29		20	12	110	15	12	3	309
Baltimore Oriole	2	1	1				5	3		4			18			5		39
Purple Finch					3	3						1						7
House Finch	256	76	110	35	1	22	60	16	55	38	3	23	68	3		114	64	944
Red Crossbill					10													10
Pine Siskin			*	12	15							3						30
American Goldfinch	374	941	676	60	71	53	298	50	64	37	4	154	379	3	4	307	26	3501
Evening Grosbeak					*		3											3
House Sparrow	128	102	27		1	31	62	30	49	33		28	26	10	25	92	29	673
No. of Species	120	124	124	100	78	104	121	77	110	122	57	136	126	175	85	122	98	292
No. of Individuals	11242	7262	7240	2447	1463	2353	9436	1159	3274	4606	275	3975	5623	12185	1236	4495	3198	81469

Species	CPNC	DUNC	GRNC	HCNC	HPNC	ICNC	JLNC	MJNC	RANC	RVNC	SMNC	SPNC	WSNC	CASC	CGSC	LSSC	SPSC	Total
Total Field Hours	165.1	76.25	89.5	32.25	36	31.5	151.95	9.5	53.5	50	5.5	65	101	89	15.5	67.5	56.5	1095.55
Hours on foot	115.8	65.75	63.75	14.75	6.5	11	122	1.5	47	30		27	86	36	6.5	51.5	22	707.05
Hours by car	44.3	6.5	25.75	17.5	29.5	20.5	23.2	8	6.5	20	3	38	15	33.5	9	16	28	344.25
Hours by bike											2.5							2.5
Hours by boat	5						6.75							6				17.75
Hours by golf cart														13.5				
Hours Owling	7.8	1.5	0				3.75		1	0.5		4.5	4	1.75	1	2	6.5	34.3
Total Field miles	390.3	160.5	350.5	184	95.25	190	251.75		109.5	355.75		371	214	330.7	124.5	164	390	3681.75
Miles on foot	76.8	49.5	48	11	4.75	10	79.95		38.5	23.75		25	23	22.5	5.5	34	25	477.25
Miles by car	308.5	111	302.5	173	90.5	180	169.8	100	71	332		346	175	263.2	119	130	305	3176.5
Miles by boat	4.8						2							32				38.8
Miles by golf cart														13				13
Miles Owling	16.5	4.5					11		1			35	3	15	4	10	60	160
Date	5/14	4/30	4/29	5/13	5/13	5/7	5/7	5/13	5/13	4/29	5/13	4/30	5/5	4/30	5/13	4/29	5/13	

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Status of the Cave Swallow in North Carolina

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Two subspecies of Cave Swallow (*Petrochelidon fulva*) have been documented to occur in the United States – the West Indies race (*P. f. fulva*), a rare breeder in southern Florida (Smith and Robertson 1988, Webber 1996), and the southwestern United States/Mexico race (*P. f. pallida,* formerly *P. f. pelodoma*), which is expanding its breeding range in Texas, where it is locally common (West 1995).

The Cave Swallow has been admitted to the Carolina Bird Club Official List of North Carolina birds on the basis of four accepted records (North Carolina Bird Records Committee (1993, 1994, 1996). In addition, the N.C. Bird Records Committee accepted photographs for one of the reports. (In this paper, a "report" is a written description or other documentation not yet accepted by a records committee, whereas a "record" is such material that has been accepted by a committee.) However, none of the four records has had full details submitted for publication. This paper documents these four records, providing descriptions of the birds and other significant details. LeGrand has summarized field notes and/or Rare Bird Sighting Report forms written by Fussell (Records 1 and 2), Wright (Record 3), and Brinkley (Record 4).

Record No. 1

On 17 December 1987, Fussell observed a *Petrochelidon* swallow (either a Cave Swallow or a Cliff Swallow [*P. pyrrhonota*]) at Duncan's Landing, near the Mill Creek community in Carteret County (LeGrand 1988). The swallow was studied for about 30 minutes with 9x binoculars in excellent light, as close as 50 feet, as it flew about while feeding. Fussell believed that the bird was a bit bulkier than a Tree Swallow (*Tachycineta bicolor*), although no individuals of that species were present for comparison.

Fussell believed that it was likely a first-winter bird because the plumage was not crisp-looking (like that of an adult). The back and wings were a dark color, between bluish and brownish. Some light streaking on the back was evident. The squarish tail was also dark. The rump was a light buffy color, and this color stood out for a great distance. The throat/upper breast area was a similar light buffy color, and this color extended around the nape to form a collar. This buffy collar stood out at a distance about as prominently as did the rump patch. The belly was whitish. The transition from the buffy color of the throat/upper breast to the whitish of the belly was gradual. The crown, at least the rear portion, was dark. The forehead was definitely not very light in color, but it must have been somewhat lighter than the crown, as Fussell recalled that the bird had a somewhat masked look, with a noticeably dark line through the eye to the bill.

Fussell believed that the bird was a Cave Swallow, but as he had never seen that species, he wanted to ruled out the possibility of Cliff Swallow, especially a faded first-winter Cliff. Thus, at the time he considered the bird as a Cave/Cliff Swallow. On 5 August 1988, he was able to study both immature and adult Cliff Swallows, at a breeding colony at Jordan Lake, NC. After this study, he was sure the December 1987 bird was, indeed, a Cave Swallow. It was not until after the following observation, however, that Fussell submitted the 1987 record for consideration by the Records Committee.

Record No. 2

A large concentration of swallows was observed by Fussell, Larry Crawford, and Bob Holmes at the Martin-Marietta quarry in New Bern, Craven County, on 16 December 1991 (LeGrand 1992). All of the birds were studied at leisure for about 45 minutes and as close as 75 feet. Fussell used 9x binoculars for the observation.

Two Cave Swallows were identified by the three observers, among a large aggregation of Tree Swallows, one Northern Rough-winged Swallow (*Stelgidopteryx serripennis*), and one Bank Swallow (*Riparia riparia*). The latter two species are very rare in December along the southeastern Atlantic coast north of southern Florida. The swallows were concentrated in a warmer section of the quarry that was protected from the northwest wind and was exposed to the morning sun. The birds were evidently feeding on insects. The Cave Swallows typically fed higher than most of the Tree Swallow flock. The Cave Swallows fed primarily just below the crest of a high bank. They were continually being harassed by Tree Swallows during the entire period of observation.

The Cave Swallows had a squarish tail and bold, relatively light, rump patch. The birds were very slightly smaller than Tree Swallows, noted in direct comparison. The back, upper surface of the wings, and tail were dark; color was not discerned. Whitish stripes on the upper back were quite pronounced. At a distance, the birds did not have the hooded look of a Cliff Swallow. The pattern of the underparts suggested a Northern Rough-winged Swallow, with whitish belly and slightly darker upper breast and throat, which were buff-colored. This buffy color extended around to the nape to form a collar. This collar was very noticeable at a great distance. The crown was dark. The birds did not have a

pale forehead, but the forehead was evidently slightly lighter than the crown because it emphasized a dark, thin mask from the eye to the bill.

Record No. 3

On 5 February 1995, John and Paula Wright, and Nell and Jimi Moore, observed a Cave Swallow in flight at a sewage treatment area near the intersection of NC 210 and Folkstone Road, about 2 miles north of the NC 210 bridge to Topsail Island in Onslow County (Davis 1995a). The bird flew mostly low, back and forth, apparently feeding on small insects over an extensive wet grassy area where sewage effluent is sprayed onto the ground. The swallow was briefly in the company of three adult Tree Swallows.

The swallow had a square tail with a large, buffy-light orange rump patch. The face was buffy, with light buff-tan extending onto and around the nape. The forehead, studied at close range, was a slightly darker burnt-orange in color. The remainder of the upperparts were a mostly dull slaty-brown. The underparts were creamy-white to tan, with a hint of light buff working its way onto the chin/neck area from the face. The predominant pattern of the underparts was its uniformity of color.

Record No. 4

On 19 May 1995, Edward Brinkley and Randy Moore observed a Cave Swallow feeding on insects over the Bodie Island Lighthouse Pond, on the Dare County coast (Davis 1995b). The bird was seen for 5 minutes in good light as close as 75-80 feet (25 m).

The dorsal surface was dark with rufous uppertail coverts and lower back, and it had an indistinct gray hind-collar. It was strikingly pale below, with faint orange wash on the throat and side of the face (auriculars). A darkish cap with intense orange forehead was noted. There was no dark coloration on the chin, throat, or breast, ruling out Cliff Swallow. The bill and eye were dark. Faintly stippled pale streaking was observed on the mantle.

Discussion

Because of the possibility that the two subspecies of Cave Swallow will be split into separate species (as suggested by Garrido *et al.* (1999)), observers should note the flank color and the color of the rump. The race *fulva* has buff- to rust-colored flanks and a darker rust-colored rump than does *pallida*, which has little or no buff or rust color on the flanks (Garrido *et al.* 1999, National Geographic Society 1999). Thus, observers should not only be looking for Cave Swallows, but they should also study all marks carefully once a Cave Swallow is seen, especially the coloration of the flanks.

Wright noted that the bird he observed (Record No. 3) appeared to be of the southwestern *pallida* race, based on pale underparts and the light buffy-orange rump patch. None of the observers of the four records mentions buff- or rust-colored flanks, although several observers were consciously looking for this field mark. Because the southwestern U.S. race is expanding its breeding range in Texas and is also wintering regularly there (National Geographic Society 1999), most if not all of the North Carolina records likely refer to *P. f.*

pallida. The only record (specimen) of Cave Swallow in South Carolina was an individual at Folly Beach, Charleston County, on 31 October 1993 that was determined to be *P. f. pallida* (McNair and Post 1999).

Three of the four occurrences of Cave Swallow for North Carolina are from December through February. Perhaps surprisingly, there are no reports for the fall season, when the Cave Swallow might be most likely to occur in the state, based on numerous reports published in *American Birds* and *North American Birds* that summarize important bird observations across the North American continent. Although the Cliff Swallow migrates through the state in the fall, it tends to migrate early (generally from July into September) and is quite rare along the coast. Thus, observers are probably not overlooking Cave Swallows as Cliff Swallows.

Observers might also be overlooking Cave Swallows if they occur in very large flocks of Tree Swallows, which may occur by the thousands in fall and in winter near and along the coast, where Cave Swallows (and other strays) typically are encountered.

Acknowledgments

We thank Douglas McNair for reviewing this manuscript and providing a number of important references.

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Active Ruffed Grouse Nest Found in South Carolina

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The Ruffed Grouse (*Bonasa umbellus*) is an uncommon resident of the Appalachian Mountains, with the lower altitudinal limit of its range being 300m (McNair and Post 1993). Late May and early June are the usual months that eggs are laid (Sprunt and Chamberlain 1970). Post and Gauthreaux (1989) describe the status of the species as "poorly known," so all sightings in South Carolina should be reported. This is the first photographic evidence of the nesting of this species in South Carolina.

On 5 May 2000, while conducting point counts, I found an active Ruffed Grouse nest with 7 eggs. The nest was beneath a 38 cm stump that was 1 m uphill of the Foothills Trail in Pickens County, South Carolina, and only about 250 m from F. Van Clayton Highway at Chimney Top Gap (35° 03' 43.9" N, 082° 47' 49.8" W). The nest was constructed out of hardwood leaves and 2 contour feathers (fig. 1). The site was a mature oak-hickory forest on a southwest slope of 240° and at an altitude of 805 m. Groundcover consisted of canopy species seedlings, sparse ferns, and forbs.

The nest was reinspected on the morning of 26 May 2000. The female was flushed and the eggs were inspected for signs of life. I heard one of the chicks peeping within its egg, and some eggs were pipped.

On 29 May 2000, Stanlee Miller from Clemson University reinspected the nest and found that 6 of the 7 eggs had hatched. The shells and the addled egg were taken back to Clemson University, where they were catalogued (CUSC#3787) along with copies of my photographs of the site and nest.

This finding demonstrates that a Ruffed Grouse had laid eggs in April and that they had hatched in May, earlier than what Sprunt and Chamberlain (1970) report as the normal time frame. The altitude was within the known range according to McNair and Post (1993), however. In an investigation on Ruffed Grouse habitat use by Hein (1970), mature, xeric communities dominated by Pignut Hickory (*Carya glabra*) and White Oak (*Quercus alba*) were the sites of most brood reports. This is the same forest type in which I found this active Ruffed Grouse nest.

Fig. 1: Ruffed Grouse nest in Oconee County, SC. 5 May 2000. Photo by Anna Huckabee.

There is a second record of a female and young being seen approximately 1.24 km (2 miles) east of Laurel Fork Falls along the Foothills Trail on 16 May 2000 by Johnny Townsend of Clemson University (CUSC records). The actual number of fledglings could not be determined. Both of these sightings demonstrate early nestings of Ruffed Grouse in the Blue Ridge Escarpment of South Carolina.

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Scissor-tailed Flycatchers Nesting in North Carolina

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On June 1, 2000, at about 5:30 p.m., Eric Olsen was driving on the private road leading to Friendly Ridge Farm in southern Union County, North Carolina, approximately 5 miles south of Monroe off Wolf Pond Road. He spotted two birds flying beside his vehicle as he drove up the hill. He got a good look at one of the birds. It had an extremely long tail that was split in a **V** shape. It was pale gray on the back, and it had dark wings, a salmon pink color under the wings, and a spot of red color at the shoulder. The other bird had a shorter tail but was not seen clearly. Although it seemed certain that this was a Scissor-tailed Flycatcher *(Tyrannus forficatus)*, it was 5 days before the identification could be confirmed by Blayne and Anne Olsen.

On June 6, B. Olsen saw two Scissor-tailed Flycatchers as he was driving up the farm's road. They were sitting on the top wire of a fence and flew to a small grove of Chinaberry *(Melia azedarach)* trees in the center of the pasture. The Olsens were able to observe the birds for about 10 minutes using 10x binoculars and a 60x spotting scope. Both Olsens clearly saw the gray color on the backs, the dark wings, the salmon pink color under the wings, the spot of

Scissor-tailed Flycatcher near Monroe, NC, July 15, 2000. Photo by Mary Welty, Denver, NC.

red at the shoulder, and the characteristic long scissor-like tail. The male's tail was significantly longer than the body. The female had a shorter tail, about body length. After about 10 minutes, the birds took off and flew to the top of a high-tension power line tower (the "tower") and could not be seen.

On June 7, A. Olsen spotted the beginnings of a nest. It was in the northwest leg of the tower where several crossbars converged. A. Olsen posted the news on the Carolinabirds e-mail list. By June 10 Taylor Piephoff, Harry LeGrand, Will Cook, Judy Walker, Wayne Forsythe, Bob Olthoff, Dwayne and Lori Martin, and others had visited the farm and seen the scissor-taileds. Both Olsens spent most of the morning of June 10 observing the birds. The birds were seen catching insects, visiting the nest, copulating, and sitting on the nest.

The male was seen defending the territory. Its first observed defense occurred at approximately 10 a.m. on June 10 when a Black Vulture *(Coragyps atratus)* flew over the pasture just south of the tower. The male scissor-tailed chased the vulture and dive-bombed it until it was well away from the area. When the vulture was far enough away, the male scissor-tailed flew up in the air, looping and diving. E. Olsen described this as a "victory dance." On other occasions the male was seen chasing off Turkey Vultures *(Cathartes aura)*, Red-tailed Hawks *(Buteo jamaicensis)*, and a Great Egret *(Ardea alba)*. On several occasions A. Olsen observed the male flying high up into the air, twisting and turning and swooping down. This was done in the presence of the female as she sat on a low fence.

Scissor-tailed Flycatcher and young near the nest on July 15, 2000. Photo by Mary Welty.

During the next week the female was seen on the nest during the morning hours. On several occasions she was seen copulating with the male. Based on information on the web (Oklahoma Department of Wildlife Conservation 1997) that egg-laying takes place in the morning, it was assumed the female was laying eggs. By June 17 she was spending most of the time sitting on the nest. By June 30 B. Olsen saw the female return to the nest as usual, but this time, instead of settling down, she remained perched on the side with her head cocked as if listening. This behavior suggested that the eggs were about to hatch. On July 4 E. Olsen spotted two young in the nest. On the July 5 he saw three young.

By July 14 four young were grown enough to be seen fairly easily. They had new feathers that were developed enough so that the coloration could be seen to be generally the same as the parents. The tail feathers were only about 1 inch long. On July 15 at 9 a.m. it was evident that the young had fledged. A. Olsen spotted two young in a Willow Oak *(Quercus phellos)* in the cemetery, and a third was spotted in the weeds by the tower. By 7 p.m. two young were in the top of the largest Willow Oak in the cemetery, and one was in a grove of Eastern Redcedar trees *(Juniperus virginiana)* under the tower. The male stayed with the young in the Willow Oak, and the female stayed near the one in the redcedar tree.

During the next week three young were observed together. They stayed close together and could be fairly easily observed. Regular observations were made through July 23. After then the sightings stopped until August 3, when the female and one young were seen at approximately 5:30 p.m. By this time the tail feathers on the young bird were about as long as those on the female. The immature could be distinguished from the female by the thin white edge on the wing feathers.

This is the first report of breeding and successful nesting of Scissor-tailed Flycatchers in North Carolina. Previous records list the species as an occasional or rare visitor (Fussell 1994, Potter *et al.* 1980, and Pearson *et al.* 1942). The normal breeding range of Scissor-tailed Flycatchers is in the area from New Mexico to Louisiana and Nebraska southward to Mexico and southern Texas. The habitat around the tower is similar to that in Oklahoma (Oklahoma Department of Wildlife Conservation 1997). It consists of a mixture of pastures and trees. Some trees are isolated within the pastures, and others are along fence lines. Low fences surround the pastures.

Virginia reported its first nesting for this species in 2000 after a pair fledged young in Culpeper County (Heatwole 2000). South Carolina also has one nesting record, from Laurens County in 1982 (Mancke 1982).

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Common Loon Entangled in Fishing Line on Lake Jocassee, Oconee County, South Carolina

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At about 1900 h on 25 May 2000, we observed a Common Loon (*Gavia immer*) in basic plumage along the shore of a small cove about 500 m south of the Bad Creek Project discharge on Lake Jocassee, Oconee County, South Carolina. About an hour later, we again saw the loon about 100 m from the Bad Creek Project outlet. At this time, Ellenberger and Joye noticed that the loon had monofilament fishing line wrapped around its head and body. The bird, however, appeared to be in good condition and was swimming without trouble. We decided to try to capture the loon from the boat with a large landing net. Joye was able to net the bird on the first try.

We found that line was wound around the wings and feet, with most of the line tightly wrapped around the tongue. The tongue was black and hard anterior to the line and soft and tan posterior to the line. With Joye restraining the loon, Ellenberger and Bowers cut the line with a single-edged knife. We found no hook or line traveling into the loon's throat, and the bird was not emaciated. Except for the injuries to the tongue, the bird appeared to be in good physical condition.

Upon release, the loon swam off at a leisurely pace. We observed the bird for another 30 minutes until dark.

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

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All Dates Spring 2000

Briefs for the Files is a seasonal collection of uncommon-to-rare or unusual North and South Carolina bird sightings and events which do not necessarily require a more detailed Field Note or article. Reports of your sightings are due the 20th of the month after the end of the previous season.

Winter = December 1 - February 28, due March 20
Spring = March 1 - May 31, due June 20
Summer = June 1 - July 31, due August 20
Fall = August 1 - November 30, due December 20

Reports can be submitted in any format, but I prefer that you type them and list the sightings according to the birds in checklist order (not according to dates or locations). If you submit your report to me through e-mail, please type your report directly into the message or copy it from a word processing program directly into the message. You may also attach your file to the e-mail, but if you do, please let me know the program used and also send a second version saved as a text (.txt) file.

Suitable reports for the Briefs include any sightings you feel are unusual, rare, noteworthy, or just plain interesting to you in any way! It is my responsibility to decide which reports merit inclusion in the Briefs.

Please be sure to include details of any rare or hard-to-identify birds.

I rely in part on sightings reported in Carolinabirds. Please don't, however, rely on me to pick up your sightings from Carolinabirds. Instead, please also send your sightings directly to me as described above.

If I feel that your sighting warrants a Field Note, I will contact either you or the appropriate state Field Notes editor. You may, of course, submit your Field Note directly to the editor without going through me.

COMMON LOON: Of several scattered inland reports, the best total was the 40 on L. Julian, Buncombe County, NC, March 20 (Wayne Forsythe).

PIED-BILLED GREBE: One was very late, for such an elevation, at Table Rock State Park, SC, May 29 (Scott Stegenga).

RED-NECKED GREBE: This rare species was reported several times this spring. Three were on L. Norman, NC, March 10 (Tom Lorenzin), one was at Huntington Beach State Park, SC, March 25 (Robin Carter and Caroline Eastman, sev. obs.) and April 25 (Jack Peachey), and one was at the Garysburg, Northampton County, NC, goose pond April 30 (Ricky Davis, Frank Enders).

EARED GREBE: Some of the last reported Eareds included two on L. Wylie, SC, March 25 (*fide* Taylor Piephoff), one at the Hemingway, Williamsburg County, SC, sewage ponds April 2 (Robin Carter and Caroline Eastman), and three at the Savannah Spoil Site, SC, April 5 (Steve Calver).

HERALD PETREL: This species has become regular off North Carolina the last couple of years. This spring an impressive seven individuals were found. Dark phase birds included singles off Hatteras May 13 (Brian Van Druten), May 20 & 21 (Brian Patteson *et al.*); two off Hatteras May 27 (Patteson *et al.*); and one off Manteo May 28 (Mike Tove *et al.*). A light phase bird was also off Hatteras May 21 (Patteson *et al.*).

FEA'S PETREL: Two reports of this petrel involved singles off Hatteras May 27 & 28 (Patteson *et al.*).

BERMUDA PETREL: North Carolina got its 6th-8th reports of this rare, endangered species this spring. Single birds were found off Manteo May 26 (Patteson *et al.*) and May 28 (Tove *et al.*). One was also seen off Hatteras May 27 (Patteson *et al.*).

BLACK-CAPPED PETREL: The peak one-day total for the spring season off North Carolina was the 203 off Hatteras May 21 (Patteson *et al.*). In South Carolina, where it is much harder to find, five were off Georgetown May 13 (Murray Honick, *fide* Jack Peachey).

SOOTY SHEARWATER: Numbers of this shearwater were down this spring, with fewer being seen migrating through inshore waters. The best onshore total received was of 20 in a 45-minute period from the east end of Shackleford Banks, NC, May 20 (John Fussell *et al.*).

MANX SHEARWATER: Manx Shearwaters are regular offshore spring migrants, although usually in small numbers. This year off Hatteras, there was one on May 21, two on May 28, and four on May 29 (Patteson *et al.*).

LEACH'S STORM-PETREL: The best Leach's reports were 45 off Hatteras May 27 (Patteson *et al.*), and three off Georgetown, SC, May 13 (Murray Honick, *fide* Jack Peachey).

BAND-RUMPED STORM-PETREL: The peak one-day total this spring was the 51 off Hatteras May 27 (Patteson *et al.*).

INSTRUCTIONS FOR AUTHORS

www.carolinabirdclub.org/thechat.html

AMERICAN WHITE PELICAN: One was very rare and unexpected inland at upper L. Norman, Catawba County, NC, from mid-to-late March (*fide* Taylor Piephoff). Also an excellent count, especially for so late in the spring, was the 23 at the Savannah Spoil Site, SC, May 19 (Steve Calver).

DOUBLE-CRESTED CORMORANT: A new breeding location was found at Swan Lake, Sumter, SC, during May (Robin Carter and Caroline Eastman), where one nest was with a couple of Great Blue Heron nests. The species continues to increase as inland migrants, as evidenced by the count of 1,170 at Falls Lake, NC, April 9 (Ricky Davis).

ANHINGA: Inland reports this spring included three over Jordan Lake, NC, April 8 (Emily DeVoto); two (possibly from the previous flock), over Mason Farm, Chapel Hill, NC, April 8 (Dennis Burnette *et al.*); one over Chapel Hill, May 14 (Steve Graves); one at Laurinburg, NC, May 2 (Barbara Gearhart); and three at Southern Pines, NC, April 30 (*fide* Susan Campbell).

MAGNIFICENT FRIGATEBIRD: The first of the season of this annual visitor involved an adult female near Bogue Inlet, NC, May 10 (Russell and Ruth Roberson).

AMERICAN BITTERN: Noteworthy inland bittern sightings were of singles in Durham County, NC, April 17 (Chris Eley), at Pee Dee N.W.R., NC, April 18 & 27 (Ken Reininger *et al.*), and in Henderson County, NC, April 16-25 (Wayne Forsythe, Marilyn Westphal, Bob Olthoff). Late coastal birds included one at Bear Island, SC, May 1-6 (Robin Carter, Dennis Forsythe) and one at northern Bodie Island, NC, May 30 (Jeff Lewis). The latter bird possibly could represent local breeding.

SNOWY EGRET: One was quite unusual far inland near the French Broad River, Henderson County, NC, April 7 (Marilyn Westphal).

LITTLE BLUE HERON: Interesting inland reports included three adults at Greenview Pond, Wake County, NC, April 24, with one still there May 22 (John Argentati, Steve Shultz), one north of Charlotte, NC, April 15 (Taylor Piephoff), and one at Broad River W.M.A., Fairfield County, SC, April 18 (Tim Kalbach).

CATTLE EGRET: Two were far to the west near the French Broad River, Henderson County, NC, April 7 (Marilyn Westphal) and quite possibly the same two were later seen at L. Julian, Buncombe County, NC, the next day (Wayne Forsythe and Marilyn Westphal). Other inland Cattles included one near West Lake, Wake County, NC, from late March to early April (Karen Bearden, sev. obs.), and one at Mapleview Farm in western Orange County, NC, April 27 (Doug Shadwick).

BLACK-CROWNED NIGHT-HERON: One was a surprise in the mountains at Beaver Lake, Asheville, NC, April 5 (Vin Stanton, Len Pardue, Marilyn Westphal).

YELLOW-CROWNED NIGHT-HERON: One was a good find in the mountains at Jackson Park, Hendersonville, NC, April 29 (Wayne Forsythe and Ron Selvey).

GLOSSY IBIS: One at Greenview Pond, Wake County, NC, May 24 (John Argentati), provided a rare inland sighting.

ROSEATE SPOONBILL: One was a good find at Pea Island N.W.R., NC, May 25 (Andrea Zuckerman, sev. obs.), and was observed sporadically on into summer.
TUNDRA SWAN: One was late at Pea Island N.W.R., NC, April 29, as noted by Brad Carlson.
ROSS'S GOOSE: The wintering bird in Forsyth County, NC, was last seen near Salem Lake April 2 until May 1 (Ramona Snavely, Regina Burt, m. obs.), surprisingly late for this species.
EURASIAN WIGEON: The two wintering on Greenfield Lake, Wilmington, NC, were last seen in early March, as noted by Greg Massey. Also the wintering Pea Island N.W.R., NC, bird was last reported April 2 (Ricky Davis).
LATE, LINGERING WATERFOWL: Late ducks included three Shovelers, one Green-winged Teal, and one Lesser Scaup at the Savannah Spoil Site, SC, May 30 (Steve Calver), one Long-tailed Duck at Mt. Pleasant, SC, until May 21 (Dennis Forsythe, sev. obs.), and one Common Merganser at Jordan Lake, NC, May 7 (*fide* Norm Budnitz).
SURF SCOTER: Always noteworthy inland, a female Surf was on Roanoke-Rapids Lake, NC, April 30 (Ricky Davis). And even more surprising was the discovery of a migratory flock of 11 (5 males, 6 females) at a small pond near the Blue Ridge Parkway near Sparta, NC, April 17 (Jim, Alice, and Barbara Keighton). This was a most unusual mountain area report of a species not normally found that far inland in the state.
RED-BREASTED MERGANSER: An excellent inland spring total was the 37 on L. Julian, NC, March 22 (Wayne Forsythe).
SWALLOW-TAILED KITE: North Carolina sightings of spring migrants included singles at Atlantic, Carteret County March 23 (Rick Metz, *fide* John Fussell), at Newport, Carteret County April 8 (Rich Boyd), at Buxton April 15 (Marcia Lyons), and along Macedonia Road in the Green Swamp, Brunswick County April 22 (Doug Shadwick and Bruce Young).
MISSISSIPPI KITE: New North Carolina nesting locations included Howell Woods near the Neuse River in Johnston County (James Sasser, Mark Johns, sev. obs.) and two new areas in Laurinburg, in addition to the well-known site (Barbara Gearhart). The Roanoke Rapids nesting site is also active again (Frank Enders), and the presence of several birds in one area near Havelock suggests breeding (John Fussell, Ned Brinkley *et al.*).
BROAD-WINGED HAWK: Rare spring coastal plain sightings included one over Conway, SC, April 16 (Gary Phillips) and five different ones in Richmond County, NC, during May (Barbara Gearhart). Also one at Roanoke Island, NC, May 10 (Jeff Lewis) was very noteworthy for that coastal locality.
ROUGH-LEGGED HAWK: The wintering Rough-legged at Alligator River N.W.R., NC, was last reported March 5 (John and Paula Wright). Also the Rough-legged reported from the Pond Mountain, Ashe County, NC, area during the winter was again found March 6 (Ron and Suzanne Joyner).
BLACK RAIL: Locally interesting Black Rail reports included two calling (often during the middle of the day!) from the Bodie Island Lighthouse pond marsh from late April (Brad Carlson) through the end of May (sev. obs.), and one being present at the Savannah Spoil Site, SC, April 5-23 (Steve Calver).

VIRGINIA RAIL: One was heard calling from the Greenview Pond marsh, Wake County, NC, May 13 (John Argentati); was this a late migrant or a possible breeder?

BLACK-BELLIED PLOVER: The only inland migrants reported involved one near Durham, NC, May 21 (Tom Driscoll *et al.*) and two at Hooper Lane, Henderson County, NC, May 10 (Ron Selvey).

AMERICAN GOLDEN-PLOVER: One was at Hooper Lane, NC, April 17 (Wayne Forsythe, Marilyn Westphal and Bob Olthoff) for a good report. Coastally, where very rare in spring, one was at the Savannah Spoil Site, SC, April 20-21, as noted by Steve Calver.

SEMIPALMATED PLOVER: Numbers of inland migrants were lower than usual, with the best counts being four near the French Broad River, Henderson County, NC, May 6 (Marilyn Westphal and Bob Olthoff) and May 13-14 (M. Westphal *et al.*) and four at Horse Creek Wastewater Treatment Plant (W.T.P.), Aiken County, SC, May 13 (Anne Waters).

AMERICAN OYSTERCATCHER: One made a surprise visit to the Crosswinds area of Jordan Lake, NC, April 15 (Doug Shadwick, Will Cook). There are only a handful of inland records for this species in that state.

SPOTTED SANDPIPER: One at Woodlake, Moore County, NC, March 1 (Susan Campbell) was more likely a wandering wintering bird than an early migrant.

UPLAND SANDPIPER: Good numbers of spring Uplands were had with six at the Cherry Hospital area, Wayne County, NC, April 9 (Eric Dean), and eight at Hooper Lane, Henderson County, NC, April 22 (Wayne Forsythe). Other interesting reports involved one singing(!) near the French Broad River, Henderson County, NC, April 21 (Marilyn Westphal) and one very late along NC 12 at Pea Island N.W.R. May 27 (Jeff Lewis and Keith Watkins).

WESTERN SANDPIPER: Noteworthy inland Westerns included one at the Columbia, SC, W.T.P. April 20 (Robin Carter and Caroline Eastman), one in Happy Valley, Caldwell County, NC, April 26 (Dwayne and Lori Martin), three at Winston-Salem, NC, May 6 (*fide* Ramona Snavely), and one in Henderson County, NC, May 26 (Wayne Forsythe and Bob Olthoff).

WHITE-RUMPED SANDPIPER: The best inland totals reported were five in Henderson County, NC, May 29-June 2 (Wayne Forsythe), up to three at the Columbia, SC, W.T.P. April 29-30 (Roger Smith, Robin Carter and Caroline Eastman), and three in Franklin County, NC, May 15 (Ricky Davis).

PECTORAL SANDPIPER: One was quite early at Ravenel, Charleston County, SC, March 8, as noted by Perry Nugent *et al.*

PURPLE SANDPIPER: Five were a surprise and out of normal habitat, when seen on a mudflat at Sunset Beach, NC, March 11 (Barbara Gearhart)!

DUNLIN: Three were locally rare inland migrants at the Horse Creek W.T.P., Aiken County, SC, April 29 (Anne Waters).

STILT SANDPIPER: Good inland migrants were singles at the Columbia, SC, W.T.P. April 20 (Robin Carter and Caroline Eastman), and near Margaret, Franklin County, NC, May 17 (Ricky Davis). Also the count of 661 at the Savannah Spoil Site, SC, May 10 (Steve Calver) was impressive even for that location.

RUFF: Amazingly, this species was found three times in the Carolinas this spring. A dark reddish-brown male was at Bodie Island Lighthouse pond, NC, April 1-5 (Gail and Keith Sutton, Keith Watson, m. obs.); another well-marked male was at the Santee Coastal Reserve, SC, April 8-10 (Ken Allen, m. obs.), and a duller male was at the Savannah Spoil Site, SC, May 10 (Steve Calver, Pete Range, Pat Metz). This is probably the most Ruffs ever found in the Carolinas during a single season.

SHORT-BILLED DOWITCHER: A flock of nine found near the French Broad River, Henderson County, NC, May 13 (Marilyn Westphal and Len Pardue, Wayne Forsythe and Bob Olthoff) provided a very noteworthy local record.

COMMON SNIPE: One found at Pea Island N.W.R., NC, May 27 (Ricky Davis) was considered to be very late.

AMERICAN WOODCOCK: Locating the nest of a Woodcock is always an exciting event. One with three eggs was found west of Rosman, Transylvania County, NC, in early April (*fide* Norma Siebenheller), and by April 10, the young had hatched and left the nest!

WILSON'S PHALAROPE: The only report was of three at South Pond, Pea Island N.W.R., NC, May 31 (Pat Moore *et al.*).

RED-NECKED PHALAROPE: Two rare onshore sightings involved one at the Savannah Spoil Site, SC, May 19 (Steve Calver), and one at South Pond, Pea Island N.W.R., NC, May 26 (Ricky Davis) and May 30 (Jeff Lewis and Keith Watson).

LONG-TAILED JAEGER: Very rare was one off Murrells Inlet, SC, May 5 (Jack Peachey), there are only a handful of records for that state. The only North Carolina sighting was of one off Manteo May 26 (Patteson *et al.*).

LAUGHING GULL: Locally unusual was one inland at the L. Murray Dam, SC, April 28 (Jerry Griggs). Laughing Gulls return in the spring usually along the coast, but on March 19 in North Carolina, a most unusual event was noted. A conservative count of 740 Laughings (in small groups following each other) was observed to follow US 17 north from the Beaufort County line all the way to Williamston and beyond (Ricky Davis). Has anyone else seen this behavior?

LITTLE GULL: The only report for the spring was of two (with a large Bonaparte's Gull flock) at Atlantic Beach, NC, March 14 (John Fussell).

ICELAND GULL: A rare late-spring occurrence was provided by an immature Iceland present at Manteo, NC, from April 30 (Larry Crawford) until at least May 2 (Jeff Lewis).

GLAUCOUS GULL: The wintering Glaucous from the Horry County, SC, landfill was last reported March 4 (*fide* Taylor Piephoff).

CASPIAN TERN: The best inland total for this species was the 45 at Jordan Lake, NC, April 16 (Ricky Davis).

ROSEATE TERN: Seven adult Roseates were found at Cape Hatteras, NC, May 6 (Brian Patteson), an excellent count for this rare species in the Carolinas.

ARCTIC TERN: One on the beach at Cape Hatteras, NC, May 6 (Patteson), provided a very rare onshore report. Offshore, where more expected and regular, numbers were somewhat lower than past seasons. The best one-day count was only three off Hatteras May 28 (Patteson *et al.*).

FORSTER'S TERN: Several found at L. Julian, Buncombe County, NC, April 13 (Marilyn Westphal) were considered locally unusual.
BRIDLED TERN: Two off Georgetown, SC, May 13 (Murray Honick, *fide* Jack Peachey) were good finds for that state. Off North Carolina, numbers were low with the best count being five off Hatteras May 28 (Patteson *et al.*).
SOOTY TERN: The only onshore sighting was of one at the Cedar Island, NC, ferry terminal May 10 (John Fussell *et al.*). Offshore numbers were definitely up with the best one-day totals being 32 off Hatteras May 28 (Patteson *et al.*) and 10 off Georgetown, SC, May 13 (Murray Honick, *fide* Jack Peachey).
WHITE-WINGED DOVE: The Beaufort, NC, White-winged Dove continued to be seen throughout the month of May (Susan Arrington, John Fussell, sev. obs.). Other reports included one at a feeder in Wilmington, NC, in early May (Kitty Kosh, Greg Massey, sev. obs.) and one near the Bodie Island Lighthouse, NC, May 29 (Ricky Davis).
BLACK-BILLED CUCKOO: Black-billeds found this spring included singles at Gardendale, Lexington County, SC, April 28 (Robin Carter), Ft. Jackson, Columbia, SC, May 2 (Lex Glover), Transylvania County, NC, May 13 (Bill and Norma Siebenheller), Scotland Neck, NC, May 21 (Ricky Davis), and Havelock, NC, May 28 (John Fussell).
LONG-EARED OWL: Of interest was the Long-eared Owl picked up injured in Lincoln County, NC, in late March and taken to the Carolina Raptor Center (*fide* Taylor Piephoff). Just how many of these secretive owls are overlooked in the Carolinas each winter is a source for discussion.
CALLIOPE HUMMINGBIRD: South Carolina's first Calliope, which wintered in Greer, was last seen April 15 (Judy and Charles Webb, *fide* Susan Campbell).
YELLOW-BELLIED SAPSUCKER: One was a little late east of Landrum, SC, May 5, as noted by Robin Carter.
OLIVE-SIDED FLYCATCHER: This rare migrant was found three times this spring. Singles were at Mason Farm, Chapel Hill, NC, May 14 (Will Cook), at the NC Zoo, Asheboro, May 20 (Danny Swicegood), and along the Blue Ridge Parkway at Doughton Park May 26 (Sue and Joel McConnell).
WILLOW FLYCATCHER: One was a good spring find near the Silver Bluff Audubon Sanctuary, Aiken County, SC, April 28 (Anne Waters).
SCISSOR-TAILED FLYCATCHER: This season's Scissor-tailed was found near Salisbury, NC, May 19 (*fide* Taylor Piephoff). This species has become an annual visitor to the Carolinas, and this year there seems to be an unusual number of them in the East.
BLUE-HEADED VIREO: One was at the Bodie Island Lighthouse woods May 7 for a locally unusual spring report (Jeff Lewis).
WARBLING VIREO: Up to three (2 singing males and one female) were present at Anilorac Farm, Orange County, NC, from April 27 (Doug Shadwick) until the end of the period (Will Cook, sev. obs.). This species has been known to remain to breed when found east of its usual range.
BLACK-WHISKERED VIREO: North Carolina's 5th Black-whiskered was located at C. Lookout May 20 (John Fussell *et al.*), not far from the exact location of the individual found there in 1994!

NORTHERN RAVEN: One was at a rather low elevation (1500 feet) near Landrum, SC, April 23, as noted by Robin Carter and Caroline Eastman.
TUFTED TITMOUSE: One was a complete surprise, and locally very unusual at Bodie Island Lighthouse woods May 9 (Jeff Lewis). This species is basically absent on the outer banks, even though present on the nearby mainland.
RED-BREASTED NUTHATCH: One was extremely late, still coming to a feeder, on Roanoke Island, NC, May 31 (Jeff Lewis).
BROWN CREEPER: Another lingering bird was the creeper found on the Chapel Hill Spring Count May 14 (*fide* Will Cook).
THRUSHES: The thrush migration was generally lackluster once again. No big counts of grounded migrants were reported. Some late thrushes included a Swainson's and a Gray-cheeked at the Bodie Island Lighthouse woods May 31-June1 (Jeff Lewis).
"BREWSTER'S" WARBLER: Two individuals of this Blue-winged X Golden-winged hybrid were found at the Stecoah Gap (NC 28) area April 20 (John and Paula Wright). This area is one of the best Golden-winged spots in North Carolina as there are usually multiple pairs here.
NASHVILLE WARBLER: One was quite rare near the coast along the NE Cape Fear River, north of Wilmington, NC, May 13 (Greg Massey *et al.*).
CHESTNUT-SIDED WARBLER: Rare spring coastal migrants included one at Bodie Island Lighthouse woods May 9 (Jeff Lewis) and one at C. Lookout, NC, on the very late date of May 29 (John Fussell).
MAGNOLIA WARBLER: This species staged one of its better migrations in the eastern portions of North Carolina this year. Lewis had a peak of five in the Bodie Island Lighthouse woods May 14, and one was still present there as late as May 29 (Ricky Davis).
CAPE MAY WARBLER: An excellent one-day total away from the mountains was the 26 found at Ft. Jackson, Columbia, SC, May 2 (Lex Glover).
BLACK-THROATED BLUE WARBLER: Ft. Jackson, Columbia, SC, also had good numbers of this warbler on May 2, when Glover counted 56.
YELLOW-RUMPED WARBLER: A male was found singing near the top of Mt. Mitchell, NC, May 30 (Tom Haggerty). Summer reports of this species are rare at best, but this area has had them a couple of times before.
TOWNSEND'S WARBLER: A male was present for one day only at the Elizabethan Gardens, Roanoke Island, NC, April 27, as noted by Jeff Lewis. This constituted about the 4th report (two spring and two fall) for the state.
BLACKBURNIAN WARBLER: Very unusual were the three Blackburnians found at Pea Island N.W.R., NC, May 8 (Jeff Lewis). This species is normally very rare along the coast in spring.

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BAY-BREASTED WARBLER: Glover had an impressive one-day total of seven Bay-breasteds at Ft. Jackson, Columbia, SC, May 2; normally a hard-to-find species in spring away from the mountains.
CERULEAN WARBLER: Noteworthy spring migrants included one at the Congaree Creek Preserve, Lexington County, SC, April 16 (Robin Carter), one along Cane Creek Reservoir, Orange County, NC, April 27 (Doug Shadwick), and one apparently singing on territory along the Neuse River, Johnston County, NC, May 11 (Harry LeGrand).
PROTHONOTARY WARBLER: Locally rare western reports came from Haywood County, NC, May 20 (Don Hendershot *et al.*) and at Tryon, NC, April 14 (Simon Thompson). And in the other direction; unexplainable was the singing Prothonotary found in a roadside thicket along NC 12 across from Bodie Island Lighthouse pond May 26 (Ricky Davis). What this bird was doing there at that time of the season is anybody's guess.
WORM-EATING WARBLER: Interesting was the report of a Worm-eating hanging around in the Buxton, NC, woods May 22 & 31 (Pat Moore and Sidney Maddock). Could this localized area be attractive to breeding Worm-eatings?
SWAINSON'S WARBLER: Two different birds (both in breeding condition) were banded at York, SC, May 7 & 30 (Bill Hilton). This is interesting since breeding areas of this species in the piedmont are few and far between.
OVENBIRD: A pair was discovered on territory near Leland, Brunswick County, NC, during May (Greg Massey). This species is very localized and sparse as a breeder that near the coast.
NORTHERN WATERTHRUSH: An excellent count of 19 was had May 2 at Ft. Jackson, Columbia, SC, as noted by Lex Glover. Also one was a surprise offshore of Hatteras, NC, in late May (Brian Patteson *et al.*).
MOURNING WARBLER: The only report this spring was of one way offshore of Hatteras, NC, in late May (Patteson *et al.*). A most unusual occurrence since almost all spring Mournings found in the Carolinas are in the mountains.
WILSON'S WARBLER: This species was not reported much this spring. The farthest east one was found was at Mason Farm, Chapel Hill, NC, May 14 (Will Cook).
CANADA WARBLER: One was quite early in Greenville County, SC, April 23, as noted by Robin Carter and Caroline Eastman. Other noteworthy reports included birds in eastern North Carolina with one in Bertie County May 13 (Merrill Lynch and John Wright), two at Bodie Island Lighthouse woods May 14-15 (Jeff Lewis), and singles still there May 23 (Lewis) and May 29 (Ricky Davis).
SCARLET TANAGER: One was a very late migrant along the coast at the Bodie Island Lighthouse woods May 31 (Lewis).
WESTERN TANAGER: A male in good alternate plumage was a complete surprise at C. Lookout, NC, April 24 (Bob Holmes and Wade Fuller). Most of the Westerns found in the Carolinas tend to be in winter plumage or various stages of molt.

CLAY-COLORED SPARROW: One was photographed at C. Lookout, NC, April 30 (Brad Carlson), providing an extremely rare spring sighting for that species.
LARK SPARROW: Two unusual spring reports came from the mountains this year. One was in Asheville, NC, April 12-16 (Charlotte Goedsche, Marilyn Westphal, Wayne Forsythe) and another was in Henderson County, NC, April 26 (Forsythe).
LeCONTE'S SPARROW: After the past winter's influx of LeConte's into the Carolinas, lingering individuals were found at several sites. The Broad River W.M.A., SC area had at least two still present April 30 (Tim Kalbach *et al.*). At least three were still present in Mecklenburg County, NC, as late as April 15 (Taylor Piephoff). Other reports of note included singles at Raven Rock State Park, NC, March 24 (Paul Hart), Waties Island, SC, April 1 (Chris Hill), two at the Savannah Spoil Site, SC, April 7 (Steve Calver), and one near Raleigh, NC, April 17 (Jim Mulholland).
LINCOLN'S SPARROW: Noteworthy spring reports included one at Mason Farm, Chapel Hill, NC, March 2 (Jim Bloor), one at Jackson Park, Hendersonville, NC, April 25 (Ron Selvey), and one extraordinarily late at Bearpen Gap along the Blue Ridge Parkway, NC, May 27 (Chris Eley and Gordon Brown).
HARRIS'S SPARROW: One adult was found at C. Lookout, NC, April 24 (Bob Holmes and Wade Fuller), providing one of the very few spring records for the Carolinas.
WHITE-CROWNED SPARROW: One was locally unusual as a spring migrant at Huntington Beach State Park, SC, April 29 (Jim Edwards *et al.*).
DARK-EYED JUNCO: One was slightly late at Lugoff, SC, May 14, as noted by Lex Glover.
LAPLAND LONGSPUR: An excellent count of 23 was at Hooper Lane, Henderson County, NC, March 1 (Wayne Forsythe, Simon Thompson, Stephen Harris). This location has become one of the best, most reliable spots for longspurs in the Carolinas.
ROSE-BREASTED GROSBEAK: An impressive one-day total of 30 was found at Ft. Jackson, Columbia, SC, May 2 (Lex Glover). Also one was very late at Bodie Island Lighthouse woods, NC, May 31, as noted by Jeff Lewis.
INDIGO BUNTING: A very interesting congregation of Indigos occurred on the lawn of the Bodie Island Lighthouse April 29 when at least 50 were counted (Brad Carlson).
PAINTED BUNTING: A male was a surprise at a feeder inland, just east of Falls Lake, Wake County, NC, May 29 (*fide* Magnus Persmark). Normally strictly coastal in North Carolina, it seems that a few individuals of this species wander inland almost every year.
DICKCISSEL: This species was once again found at widely scattered locations in the Carolinas. Some of the sightings included up to three at Anilorac Farm, Orange County, NC, May 4 until mid-month (Elisa Enders, sev. obs.), one near Greenville, NC, April 29 (John Wright), a pair near Southport, NC, in late May (Taylor Piephoff), one near Watha, Pender County, NC, May 26 (Harry LeGrand), one near the French Broad River,

Henderson County, NC, April 20 (Wayne Forsythe), and two near Margaret, Franklin County, NC, May 24 until the end of the period (Ricky Davis).
YELLOW-HEADED BLACKBIRD: The only report this spring was of an immature male at a feeder in Morehead City, NC, April 2-11 (McDuffy Wade, John Fussell, sev. obs.).
RUSTY BLACKBIRD: One was quite late at Table Rock State Park, SC, May 2, as noted by Scott Stegenga.
SHINY COWBIRD: This species continues to increase in the Carolinas. This season's reports included one at the Savannah Spoil Site, SC, May 10 (Steve Calver), two at N. Topsail Beach, NC, May 14 (Jamie Cameron), and one in the Bodie Island Lighthouse, NC, area May 26-27 & 29 (Jeff Lewis, Ricky Davis).
BALTIMORE ORIOLE: Very impressive for a one-day count, 21 were found at Ft. Jackson, Columbia, SC, May 2 (Lex Glover).
PINE SISKIN: The Snowbird Lodge, Robbinsville, NC, has long been known to hold good numbers of winter finches. But the count of 300 or more siskins there April 29 (Simon Thompson) was impressive even for that area.
EVENING GROSBEAK: A flock of nine Evening Grosbeaks at Salvo, NC, April 29 provided a most unexpected, locally unusual, spring report (S. Ryan).

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Carolinabirds is an Internet e-mail discussion group about birds and birding in the Carolinas. Subscribers frequently post sightings to it similar to those found in Briefs for the Files, but unusual behavior receives more attention. Subscriptions are free. To subscribe, address an e-mail message to <majordomo@duke.edu>. Don't fill in the subject line. As your message, simply put, "subscribe carolinabirds" (without the quotes). You will receive a confirmation and more information shortly. Submissions for Briefs for the Files should be sent directly to Ricky Davis.

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The Chat

(USPS 101-020)

Periodicals Postage Paid
At Raleigh, NC 27676-9651

Quarterly Bulletin of Carolina Bird Club, Inc.
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